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THE BUILDER

INCORPORATING

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PROGRESS

WHEN account is taken of the difficulties by which it has been beset during the year which has just closed, the building industry may look back with reasonable satisfaction upon the record of work accomplished. It is no secret that the Government building programme is past its peak and is expected to be completed by the autumn. This does not mean, however, that the difficulties of building and civil engineering contractors are likely to diminish in the near future; indeed, they will probably increase as a result of the urgent need to draw upon the personnel of the industry for the expansion of the Forces and the manning of the new munitions factories.

Nor must it be assumed that the industry is about to enter into a period of decline tending towards inactivity—far from it. It will be necessary to retain in being a powerful industry right through the period of the war in order to cope efficiently with the heavy and pressing volume of maintenance and repair work (including war damage) and any further construction needed for the prosecution of the war. If it is to fulfil its task the industry will have to be maintained at not less than 40 per cent. of its peace-time strength —the norm of the last war when the construction programme had been completed at a similar period.

During the past year building has been largely dominated by the Ministry of Works and Buildings in association with the Ministry of Labour and National Service. It has been essentially a period of rationing, especially of labour. Even the Government Departments have had to modify their building programmes from time to time because of labour shortage—and this notwithstanding the severe restrictions on civil building. At the same time, much unnecessary civil building work has been done, some of it in defiance of the regulations, and those responsible, where detected and found guilty, have been rightly punished. It is not yet sufficiently realised that all unnecessary building—indeed all unnecessary work whatsoever—must help in some degree to prolong the war by using labour that could be directly employed in the war effort. The Government needs the active co-operation of all citizens in this matter, and a special responsibility rests upon architects, surveyors and builders to see not only that the law is complied with, but that only essential building work is carried out.

In the discharge of the task entrusted to it by the Government, the Ministry of Works has encountered formidable difficulties, the chief of which, perhaps, was the lack of vital statistical information with respect to the industry itself. Notwithstanding the industry's high degree of sectional organisation (before the war there were more than three hundred bodies representing its various professions, trades and other interests), there were serious gaps to be filled in before the Ministry could cope effectively with its task. There was no complete Register of Builders, for example, and the compilation of such a Register has been one of the Ministry's major basic achievements during the past year. This Register, while it does not provide everything that one would like to know—it is quantitative only—has afforded much valuable information about the constitution and labour resources of the industry, which should be of great use not only during the war but also in the period of post-war reconstruction. Even now it is not possible to obtain a clear picture of the industry as a whole, and we note with interest that the Minister of Works has lately invited the Building Industries National Council to assist him in collecting the information necessary for a close analysis of the many elements that go to make up the industry in its widest sense. Such a "picture" is clearly needed if large-scale plans are to be made, as they must be made, for post-war physical reconstruction. Of that it is yet too early to speak, but there is reason to believe that the Ministry is fully alive to the many problems that will then arise and is already taking measures to meet them.

So far as the architectural profession is concerned, 1941 was not, perhaps, a particularly notable year. The initial mistake of the Government in not making full use of the services of architects has never been rectified, though, to its credit, the Ministry of Works has done what it could in this direction by employing, in addition to the large number of official architects, over 200 firms of architects in private practice in the design or supervision of construction of buildings of various kinds, and many more in the carrying out of air-raid shelter schemes in Government buildings and other works. If the profession has not been properly and fully employed, its representative bodies have at any rate shown commendable activity in the investigation of war-time and post-war planning and constructional problems. The interim reports of the R.I.B.A. Reconstruction Committee, for example, have been particularly stimulating and valuable. That on "Reconstruction and the Architectural Profession," which we published in our last issue, appeared to us to be a well-reasoned statement of desirable post-war policy. We trust that its recommendations may be taken to heart by the Government in good time.

The New Year finds us much better equipped in every way for the prosecution of the war and, for the first time since the collapse of France, supported by great and powerful allies. No man may say what trials and sacrifices lie before us, but if we all continue to do our duty, as we shall, we may be confident that every day that passes will bring us nearer to Victory and Peace.

NOTES AND NEWS

Architectural Students and the R.E.s.

As a result of negotiations between the R.I.B.A., the War Office and the Ministry of Labour and National Service, it has been agreed that "pupil architects" who become available for service in H.M. Forces and who have not expressed a preference for the Royal Navy or the Royal Air Force, or, if they have expressed such a preference, have not been accepted by the Service of their choice, may be posted by the Ministry of Labour and National Service as "students" to the Pioneer Group of the Royal Engineers. Selected candidates will be sent to a training battalion R.E. without any necessary nomination by the Institute, though it will be valuable if before registering they obtain from the Institute a certificate to facilitate arrangements for their posting.

The definition of "pupil architect" agreed with the Ministry of Labour and National Service is as follows: "A person receiving practical training in architecture and studying with a view to presenting himself for the first time for one of the qualifying professional examinations in architecture." If at any time a greater number of candidates become available than the Army require for the Pioneer student group, they may be called up and posted to other arms of the Service.

Art in the Canteens.

THE B.B.C. announces that on January 12, at 9.30 a.m., Mr. W. O. Hutchison will talk about Art in the Canteens. Mr. Hutchison is the Director of the Glasgow School of Art, and is one of the committee of members of the R.S.A. who are sponsoring the scheme in the belief that art has its own place in the maintenance of morale. He will describe some of the canteens that have already been decorated in this way, one of the most notable examples being a large naval canteen in the East of Scotland, the walls of which are adorned with a representation of the Battle of Camperdown of 1791. Not only canteens for the Forces are being beautified by Scottish artists; reference will also be made to British Restaurants which have been decorated by students of the Edinburgh College of Art.

On January 25, at 6.45 p.m., a talk on Architecture without Tears will be given by Mr. W. G. Newton, M.C., F.R.I.B.A. Mr. Newton will speak about Architecture as something to do with to-day and to-morrow.

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The New London Inn, Stamford.

A. E. R. writes:—

IT is of interest to note how business interests, particularly the brewing industry, view the development of architecture in the provinces. The New London Inn, Stamford, is a case in point. Here the architect has not attempted something in the spirit of the past, or something "arty-crafty." Neither has he gone Tudor by compulsion. The building, in scale, style and arrangement, fits in with the scenery of Stamford, and, while respectful to the stones and spire of All Saints' Church, has modest and righteous dignity. Stamford has not been too careful of its architectural reputation in recent years, thus the advent of the New London Inn is timely."

*** The inn referred to was designed by Mr. P. G. Copson, L.R.I.B.A.—ED.

"Science and the War Effort."

A CONFERENCE on this subject will be held by the Association of Scientific Workers at Caxton Hall, Westminster, on Saturday and Sunday next, January 10 and 11. A section dealing with "Building, Housing and A.R.P." will meet at 10.30 a.m. on Saturday.

Appointments.

MR. GEORGE HESSON, A.M.Inst.C.E., A.M.Inst.M. & Cy.E., P.A.S.I., has been appointed Borough Engineer and Surveyor, Finsbury, in the place of Mr. A. L. Downey, who has resigned upon his appointment as Borough Engineer of St. Marylebone.

Westminster Collects 841 Tons!

THE waste paper drive organised by the Mayor of Westminster (Councillor W. Stanley Edgson, J.P.) has resulted in the collection of 841 tons. An anonymous donor, who promised £10 for every ton, has sent a cheque for £8,410, which will be divided among the charitable organisations of the Navy, Army and Air Force. The Wardens' Benevolent Fund will receive £450.

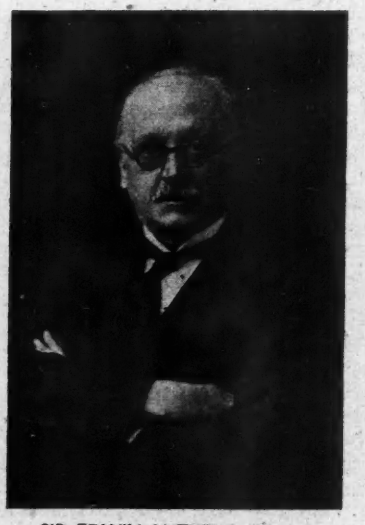
Professional Announcement.

MR. WILLIAM TOCHER, A.R.I.B.A., announces that he has taken offices at 8, Blenheim-terrace, Leeds, 2 (telephone: 22831) from January 1 last. Any correspondence on matters arising in connection with the firm John C. Procter, architect, of 40, Claredon-road, Leeds, 2, should be addressed to Mr. Tocher, who has instructions to deal with them.

IN 1917.

FROM *The Builder*, JANUARY 5.

"The year which is past has been marked by the widening of the area affected by war and the entry of fresh combatants into the struggle. Napoleon waited at Moscow for overtures of peace from the Emperor Alexander. Germany and her allies have gone farther in expressing directly and indirectly their wish for peace, but, like Napoleon, have to learn the lesson that the over-running of territory does not necessarily bring peace nearer."



SIR EDWIN LUTYENS, P.R.A.,

whose raising to the Order of Merit, announced in the New Year Honours List, is referred to on page 24.

MR. T. P. BENNETT, F.R.I.B.A.,

upon whom the honour of C.B.E. has been conferred. (See notes on the New Year Honours, page 24.)

LOOKING AT 1941

By HOWARD ROBERTSON, F.R.I.B.A.

DURING 1939 and 1940 the building industry tried, by every means in its power, to persuade the Government to make proper use of it. The industry felt that it had a part to play in helping the nation in its hour of need. It had information to give, it was organised to render service. It asked to be recognised, and used properly. Deputations of all sorts pointed out to Ministers and heads of departments what would inevitably happen if chaotic improvisation was allowed to take the place of orderly function. Members of deputations were courteously received. They were helped on with their coats. And that was about all.

In 1941 the building industry became news. The blunders made, in spite of warnings, became a matter of public knowledge. The earlier steady campaign conducted by representative leaders of the industry, including the President of the R.I.B.A., began to bear fruit. It was recognised that the industry is one that in peace and war alike plays a vital role in the national economy. The industry had asked for the creation of a Ministry of Building. It got it. But it didn't get what it had in mind, namely an agency to co-relate all war-time building. Instead, the departments continued to survive individually, and to compete with each other in the material and labour market. They are still doing it. Lord Reith's Ministry has gone through a most difficult year. Back in November, 1940, Lord Reith stated in Parliament that he had been charged to consult with others concerned and report to the Cabinet "the appropriate method and machinery for dealing with the issues involved" in the reconstruction of town and country after the war. Early in 1941 the Minister made a statement in the House of Lords in which he said that he was authorised in the preparatory work to proceed on certain assumptions, amongst which was "that the principle of planning will be accepted as national policy and that some central planning authority will be required."

The year closes without that principle being clearly established. It is a tremendous stumbling block. The Ministry has not got a clear field, or comprehensive powers, and its position *vis-a-vis* the Minister without Portfolio, within the framework of whose reconstruction schemes the Minister of Works and Buildings apparently works, is ill defined. Lack of clarity here, and absence of defined Government policy in the matter of the "central authority," create uncertainty and hold up effective work on the part of other agencies which are studying reconstruction policy.

Uncertainty plagues the industry, and the professions which are a part of it. The inexcusable failure to use qualified professional services in the execution of the Government's building programme from the outset resulted in such a scandalous situation that it became the subject matter of outspoken rebuke in the reports of the Select Committee on National Expenditure. The fourth report of that Committee, published early in 1941, recommended that all Government building should be the responsibility of the Ministry of Works and Buildings. That has not been achieved, but the employment of private architects did certainly receive a fillip during the early months of the year. The then Director of Works and Buildings, the late Colonel Howard Humphreys, and later Mr. T. P. Bennett, who now holds that office, have done a great deal to give architects an opportunity. Unfortunately, many of them had lost the best of their staffs, and were busy with the remains of their organisations on war damage work as a result of the intensive winter raids. Only a few who had been fully engaged on large work from the beginning had much chance to create records, but they did proceed, as a whole, to produce orderly and responsible results from their job in hostel and camp work, and after being first neglected, and then put into high gear under most trying conditions, it would appear from the evidence available that the architects have done remarkably well. The legend that the profession is inefficient, which is just about as true as all such generalisations, will, however, need to be finally scotched by vigorous action on the part of the professional institutes, who have a good case to bring before any tribunal which impartially judges the facts.

While the professional man struggles to keep alive, bureaucracy thrives. It always does in war time, and wars are bad things. The Ministry of Works and Buildings, for instance, was reported at an address to the Institution of Civil Engineers to be "carrying out an immense building programme, factories of all sorts, storage, landing grounds, hostels, training establishments, camps, depots—over a million pounds of work a day. It has an office staff of 9,000, half of them technical, and a field force of 12,000 . . ." But Lord Reith has always stated that his is not a gargantuan department about to seize the work of individual engineers and architects. That is a comforting reassurance; nevertheless, the architect is now entering on a fight for his very existence, and has no time to lose in taking steps to meet that situation.

The year has been an unfortunate one for the R.I.B.A. in that for some months it has been deprived of the active guidance of its President, now happily restored to health. Mr. Ansell in March read a remarkably stimulating paper on "The London of the Future" to the Royal Society of Arts, and has had the satisfaction of receiving the Society's medal for it. This lecture was the forerunner of many others, the last months of this year producing a rich crop, no doubt releasing the thoughts pent up during those long winter nights in the shelters. There has been a series at the Royal Academy, another on the Post-War Home now in progress at the Royal Society of Arts, largely created through Mr. Bossom's initiative, and many others including a very useful paper by Mr. Elcock on hospital design, past, present and future.

More important than the lectures, however, was the decision of the R.I.B.A. to set up its Reconstruction Committee "to consider and formulate the policy of the R.I.B.A. and Allied Societies in the subject of post-war reconstruction and planning in its widest aspect."

Its eight groups and its Policy Committee cover most of the reconstruction field, and the work produced up to date, resulting in the publication of four valuable reports, is of a most encouraging character; for the reports are the serious result of considered work by men and women who have all too little time to give. Much more will be heard of this R.I.B.A. Committee, which promises some interesting developments for next year. One of the principal R.I.B.A. planks is support of the demand for a central planning authority, but it has also given valuable evidence to the Uthwatt Committee and to that investigating questions of agriculture under Lord Justice Scott's chairmanship.

B.I.N.C. comes out of this year stronger than when it entered it. After a series of skirmishes with Lord Reith's Ministry, the air seems to have been considerably cleared. B.I.N.C. has modified its constitution, and aims at a wider admission to membership. It will, no doubt, achieve the desired aim of being truly representative of the building industry except for the civil engineering employing and professional groups, which so far remain outside, and it has in Mr. Richard Coppock a president who has and invites confidence, for he knows the industry inside out.

Of purely architectural interest this year there have, of course, been few activities and the pages of some journals have been somewhat heavily weighted with foreign work. The Royal Academy Exhibition was really dull and did not convey the fact that contemporary architecture is a clean, straightforward idiom, even if there is uncertainty as to future trends. The schools of architecture are producing work which also reflects world uncertainties, but there is no doubt in what general direction the sympathies of students lie. Their eyes are much more on the future than on the past. But numbers and standards have kept up amazingly well, considering the extraordinary difficulties.

The Prime Minister, in spite of being a bricklayer, does not often pronounce himself on architectural matters. But he did say this year that the house of the future should be free from domination by the utility side, and that he hoped it would not revolve solely round the kitchen. This remark may quite likely produce an effect. In spite of years of concentration on domestic work, it is pretty certain that there is still room for fresh thoughts on the design of homes, and it would not be surprising if in 1942 there were some interesting developments in design considered from the standpoint of pre fabricated elements. A lot of investigation is going on behind the scenes.

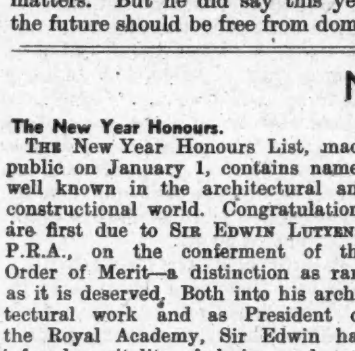
The award of the Royal Gold Medal to Mr. Curtis Green this year brings to mind the last English award which was to C. F. A. Voysey. His death this year at the age of 83 removed from the architectural scene a man whose work and convictions guarantee him a place in architectural history. Another loss is that of Frank Pick. Architects as a whole owe a great deal to him though many may not realise it.

This year has seen an outcrop all over England of untidy and shoddy building; the better the site, the more scabrous the disfigurement. They are part of the war effort, and it will be someone's job to see that one day the worst of them are cleared away. They are insidious; one gets used to them; and soon they will appear quite natural. In fact, Nissen huts with dormers are quite nice things. All the same, it is pleasant to remember that in 1941 Lord Lothian left Blickling Hall to the nation in the care of the National Trust.

NEW YEAR HONOURS

The New Year Honours.

THE New Year Honours List, made public on January 1, contains names well known in the architectural and constructional world. Congratulations are first due to SIR EDWIN LUTYENS, P.R.A., on the conferment of the Order of Merit—a distinction as rare as it is deserved. Both into his architectural work and as President of the Royal Academy, Sir Edwin has infused a vitality of design and outlook which has had considerable influence upon architectural progress. Ill-health has not prevented him from taking the keenest interest in the R.A.



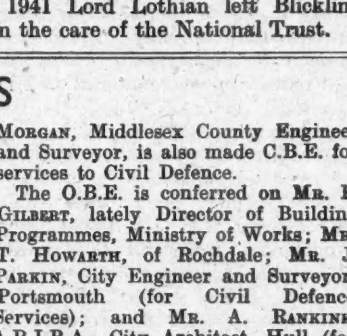
MR. GEORGE M. BURT
(Created Knight)

Planning Committee which has prepared a plan for London redevelopment.

Knighthoods have been conferred on MR. HORACE BOOT and MR. GEORGE BURT. Mr. Boot, past-president of the National Federation of Clay Industries, is the retiring Sheriff of the City of London; while Mr. George Burt, a director of Messrs. John Mowlem & Co., Ltd., a firm which has played an important part in the Government's defence building programme, has done much for technical education and research, and is Chairman of the Committee of the Building Research Board on Alternative Materials and Methods of Construction. He is a Past-President of the Institute of Builders and the L.M.B.A., was President of the Fifth International Building Conference, and a Past-Chairman of the Federation of Civil Engineering Contractors. He is a member of Lord Reith's Central Council. Mr. Burt was Master of the Old Surrey and Burstow Hunt from 1931-37, and is a keen fencer, being British epée champion, 1921, and a member of the British team in the 1920 and 1923 Olympic Games.

The honour of C.B.E. has been conferred on MR. T. P. BENNETT, F.R.I.B.A., and MR. R. COPPOCK. Since his appointment to the Ministry of Works just over a year ago, Mr. Bennett has done good work first as Director of Bricks and latterly in the important post of Director of Works. Mr. Coppock's distinction not only signalises his work as President of the Building Industries National Council, but is particularly happy as marking the 21st anniversary of his appointment as General Secretary of the National Federation of Building Trades Operatives. MAJOR W. H. MORGAN, Middlesex County Engineer and Surveyor, is also made C.B.E. for services to Civil Defence.

The O.B.E. is conferred on MR. P. GILBERT, lately Director of Building Programmes, Ministry of Works; MR. T. HOWARTH, of Rochdale; MR. J. PARKIN, City Engineer and Surveyor, Portsmouth (for Civil Defence Services); and MR. A. RANKINE, A.R.I.B.A., City Architect, Hull (for Civil Defence Services). The M.B.E. is conferred upon MR. H. L. COOK, Regional Secretary, S.W. Counties, N.F.B.T.O.; and MR. E. F. SIMMONDS, Estate Surveyor, Ministry of Works.



MR. RICHARD COPPOCK, L.C.C.
(Created C.B.E.)

AN ARCHITECT'S VIEW OF RECONSTRUCTION

6.—THE LARGE CITY

By H. V. LANCHESTER, F.R.I.B.A.

HAVING given a slight indication of the general distribution of the various elements making up the structure of the urban pattern, there remain a number of details necessary to the completion of the picture; one of the most important of these is the organisation of movement and transport.

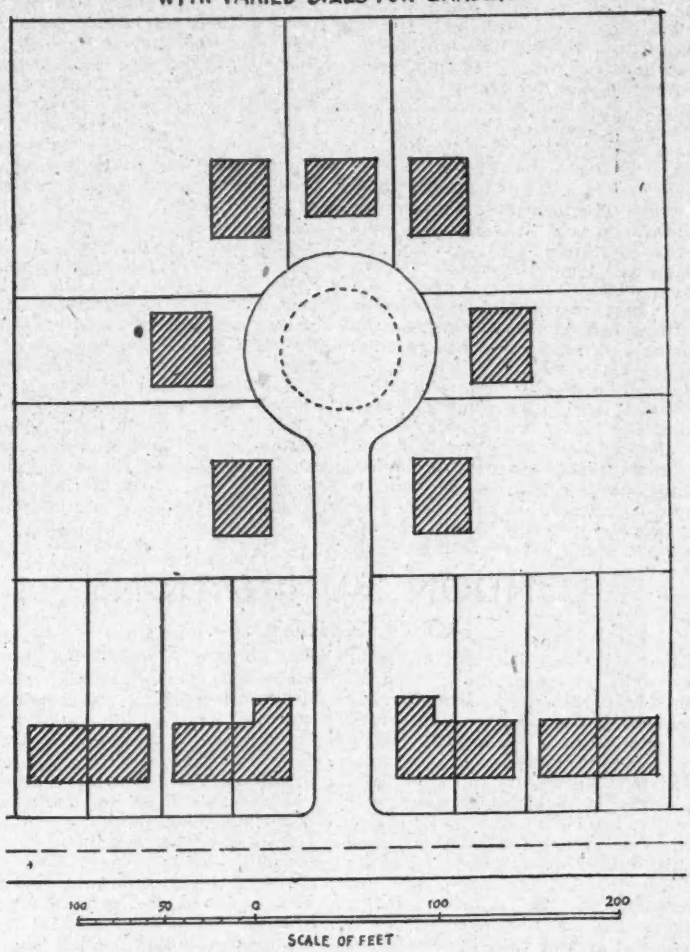
Starting with the road system, the most important routes will be the radials running outwards in all directions; these will bear the heaviest traffic, but will probably be specialised to some extent, some giving more service to industry and commerce, while others are aligned for the use of the people between their homes and places of employment. The somewhat less busy ring roads connecting these radials will also mainly serve the latter purpose, while the outermost would be in part by-pass routes, with such additions and adaptations as would render these sufficiently direct to attract the traffic requiring them. Main crossings are best provided with roundabouts, or, in cases where space and the character of the land justifies this, the clover leaf crossing may be employed.

Important arterial roads may well have the carriageway divided by a central strip wide enough for planting and have cycle tracks between the road and footways. This is now becoming the general practice; the side entrances to an arterial should be as few as possible and the openings in the central strip should be a short way to the left of such entrances. It is undesirable for building plots to open directly on to arterial roads; of the two alternatives, supplementary service roads or frontages on the next parallel road, the second would usually be the better.

General safety demands a liberal provision of bridges or subways as pedestrian crossings; the latter are preferable as nearer the footway level and less detrimental to the effect of the road, but they are usually more expensive. The use of these crossings should be compulsory, as it is impossible any longer to regard arterial routes as one would the ordinary service roads. An ingenious development of the subway system may be seen at the northern end of the Caterham by-pass, where the centre of a roundabout is laid out as a sunken garden with subways from the outer footways leading into it. As a city grows the travel to and from his work makes increasing demands on the time and energy of the worker, and although this can be diminished by a good general plan, the drastic changes that it might dictate are not always practicable, and the alternative remains of expediting transit by reorganising the road and rail services.

This involves clearing up the present defects in the use of roads, so as to eliminate the delays due to many crossings and side entries on the main routes, and particularly the trouble-

DIAGRAM OF DEVELOPMENT AT 4 HOUSES PER ACRE
WITH VARIED SIZES FOR GARDENS



some right-hand turn. With the present speed of motor traffic much greater use can be made of "one-way" routing on all minor roads with left turn only where they join or leave the important arteries. The railway question is too complex for discussion here, but it has long been obvious that there is great scope for improvement in method as regards both passenger and goods traffic.

With the anticipated increase in motor traffic the question of parking cars becomes a vital factor in planning; the many storied garage is too costly a solution to be adopted if there are any other alternatives. An underground park enabling the surface over to be used has been successfully adopted in many cases, especially where the levels favour convenient entrances as in the case of that proposed for the Civic Centre at Birmingham, but there still remains the possibility, by improvement in traffic organisation, of providing convenient space for casual parking where this is in demand. For example, the establishment of one-way traffic in many of the minor roads would allow for parking in these, and a careful study of the general plan will disclose quite a number of positions where parking would be practicable during hours other than those when traffic is at its greatest intensity. The demand should be made on the larger industrial and commercial concerns to provide, on their own sites, space for their vehicles when loading and unloading.

Owing to the comparatively recent date on which the requirements for open space at the present standard, about seven acres to the 1,000 people, have been recognised, what has been obtained lies mainly on the outskirts of the city, and there is still an acute demand for additions to this nearer the centre, so that every opportunity should be taken to secure this and thus get a more equable distribution for industry, housing, and recreation. This course would exercise a favourable influence on traffic.

The present views on the requirements for aerodromes in regard to the provision of an open zone around the aerodrome itself, render it unlikely that these could be placed close to the occupied area, and a site must be chosen giving facilities for rapid transit to the city centre by road and

rail. The national plan may be expected to include a comprehensive system for air travel and transport and its co-ordination with the ancillary facilities. By reason of its relative isolation the open zone around an aerodrome will probably be agricultural, but it may be found appropriate to allocate it for playing fields or some similar purpose.

The question of the treatment of open spaces is an important one; those nearer the centre might be laid out to have a park-like character with some degree of formality, as they would be combined with such important groups as the civic centre and possibly the principal church and its social adjuncts, or even the main railway station. Then farther out would be a zone where playing fields would be in demand, easily accessible from the housing quarters and schools. Among these, sites might be allocated for hospitals, colleges, and places of recreation, such as exhibitions, etc.; groups of allotments would also not be out of place here, and from this part of the town pleasant walking routes, leading into the open country around, should be reserved, as this open country would include further public spaces such as nature reserves, golf links, and any features of especial topographical interest. In the reservation for these purposes, valuable agricultural land should be excluded, but there would remain rough or poor ground, derelict areas, such as quarries, disused brickfields and gravel pits, which if cleverly handled could be transformed into picturesque informal parks. River banks, sea and lake frontages are of especial importance, and lines for parkways should be planned giving particular attention to these, and to the linking up of open spaces, access to viewpoints, etc.

In addition to the above general programme, careful attention should be given to all the existing smaller open spaces such as public and private squares and gardens, disused cemeteries and churchyards, together with all positions where a small garden or a few trees would improve the surroundings. The intimate study of all the features of the city plan, the vistas, the grouping and massing of the buildings, the monuments and the furnishing of the squares and streets, will well repay itself in securing beauty and harmony for the effect as a whole.

(Concluded)

LONDON RUMINATIONS

FROM A CONTRIBUTOR

THERE is nothing more interesting in these days of ruin and desolation than to visit famous buildings which have been damaged by bombs and fire. But what is most remarkable is the way some of these solid structures have stood up to the shock of high explosive. It is perhaps most significant that bombs, fire, hatred and total war cannot entirely blot out good architecture. Even to drop land mines indiscriminately is not quite so efficacious as the intuitive Hitler opined. But great damage has been done, and it will take the combined skill of generations of thoughtful architects to make things seemly after the war.

In the meantime, day after day, one or another of London's antiquary architects discovers some building which in peaceful times was ignored by the majority. Now the church is damaged we notice it, now the terrace is a mass of rubble we miss its graceful composition. Of course we shall tidy things up, but we do not realise that the contributions of a century or more cannot be replaced instanter. A year or two ago few thought that the most cherished of our possessions would be swept away. We revelled in the thought of so-called progress and we were proud to acclaim the adventitious at face value. But this is mere digression. Recently while investigating buildings in South London we stopped to inspect the damaged Church of St. Mark's at Kennington. Here was an opportunity to study the construction of the massive portico, and to wonder at the size of the stones employed for the anta of the columns.

In 1822 David Riddel Roper designed this church to accommodate 2,000 persons. As was then the fashion he followed the Greek manner, using the Parthenon order for the portico. We can now judge of the solidity of the construction by the section through the entablature, and we can marvel at the scale and detail of the mouldings. What Morosini accomplished when he bombed the Parthenon in the 17th century has been rivalled by a German bomb at Kennington. The whole of the anta forming the north-west angle of the portico has been tumbled down, the capital falling practically upright. But the four columns in antis stand unmoved, a tribute to sound masonry. This is one of the sights of South London, and should not be missed by the curious. Very little is known of this architect, who in addition to building St. Mark's, Kennington, built the Surrey Chapel almshouses in 1814, and later rebuilt Aske's Hospital at Hoxton. Roper belonged to the school of John Nash, and with S. Robinson was engaged in the valuation of the old property before Regent-street was formed.

From Kennington to North-East London is a far cry, and the sights *en route* are distressing enough. But if you have the time and the inclination to perambulate there is much to be studied. You might, for example, journey through Clerkenwell, pausing at St. Mary's, Islington, cross the drab hinterland of Canonbury to Balls Pond, and so by Shacklewell, reach Hackney. It is all very different from the terrain known to Charles Lamb.

This time the objective is the Parish Church of St. John, Hackney, built between the years 1791-1797, to hold 2,500 persons. The tradition of large congregations was strong in those remote days. Here you will find a church of unique design and gigantic scale, happily undamaged. It is perhaps the finest interior unadorned in the whole Metropolis. The late Professor Beresford Pite removed what ornament the ceiling had in order to strengthen the timber roof.

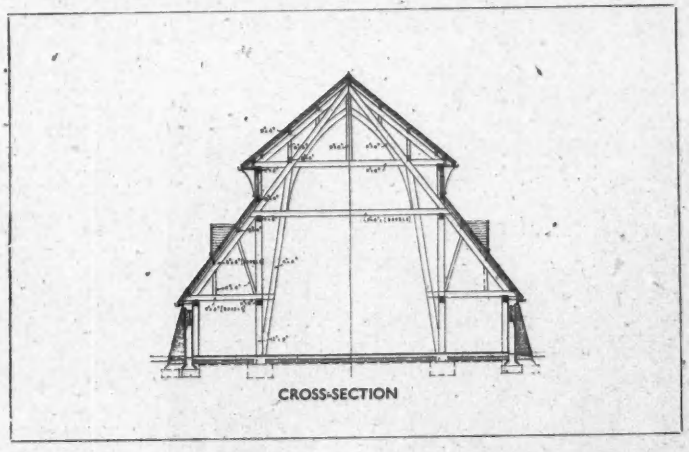
This church is rightly considered to be James Spiller's masterpiece. When it was built it cost £28,000; the cost to-day would be six times that amount. We venture to contrast the plan of this splendid church with that of St. Mark's, Kennington, because of its dissimilarity. The ceiling literally floats over the galleries in Soanean fashion. There are no visible means of support. The verger exhibits with pride a photograph of the timber roof as it was before reinforcement, but otherwise the building is exactly as Spiller left it.

James Spiller, like David Roper, belonged to a school of architects unknown to the present generation. He was concerned with the late eighteenth-century additions to the London Hospital at Whitechapel. In 1788 he was responsible for the synagogue in Aldgate, now gutted; the ruins should be visited. Inspired by a plate from Piranesi he designed the Royal Institution in Albemarle-street. There is also reason to suspect that he was responsible for some of the streets in the vicinity of Brunswick-square. We have, therefore, a synopsis of the works of two of the later Georgian architects.

Great service would be afforded if some architectural students would undertake to measure the buildings mentioned in these notes. Not only would lessons of scale be obtained but records would be available which do not exist at present.

Not a few architects have spent part of their lives wandering about the Continent recording buildings which are world famous. Their researches have been of great use and have entertained many. But those who are forced to stay in England frequently forget to study works of merit near at hand. Thus it is that fine buildings at Kennington, Highgate, Hackney or Clapton, remain utterly unknown, or if discovered by some petulant ambulator are scoffed at by youth. We do not want to admonish our teachers too soundly because we are convinced that they do their best to satisfy the rigid conditions of professional examinations, but surely the students of London schools might be told of the great buildings near at hand which are worth measuring and sketching. Our London schools and polytechnics abound with good intentions. The masters hurry the student from one subject to another, and finally leave him to the heat of the pass examination. We, however, who have experienced the value of study on the spot recommend visits to buildings in the vicinity of the schools. The design no less than construction of detail of such works will be well worth investigation. And as for the term "modern," why it is terribly old-fashioned, and ended with the outbreak of this war.

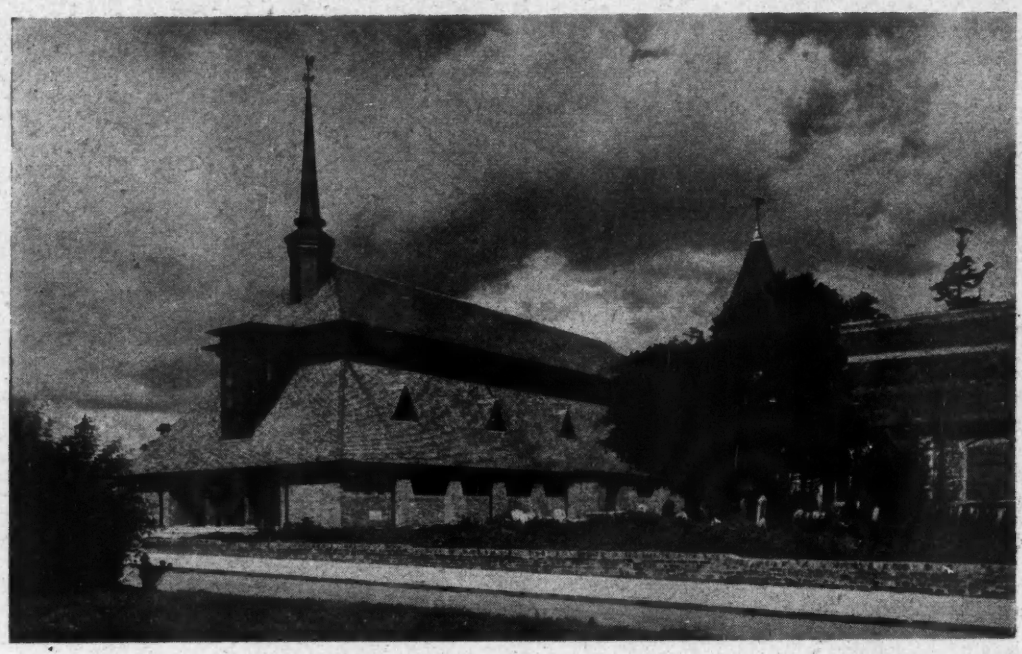
THE ENTRANCE FRONT.



CROSS-SECTION

CHURCH OF THE HOLY CROSS, GREENFORD

PROFESSOR A. E. RICHARDSON, HON. M.A., A.R.A., ARCHITECT.



VIEW SHOWING RELATIONSHIP TO OLD CHURCH.

CHURCH OF THE HOLY CROSS, GREENFORD

THIS CHURCH, PLANNED TO GIVE A seating capacity of 650, has been built by special licence during the war. It is designed to meet the needs of a new industrial area. The construction is mainly of timber and the roof is supported directly from the pavement of the church. The system of construction is original and embodies new theories of lamination.

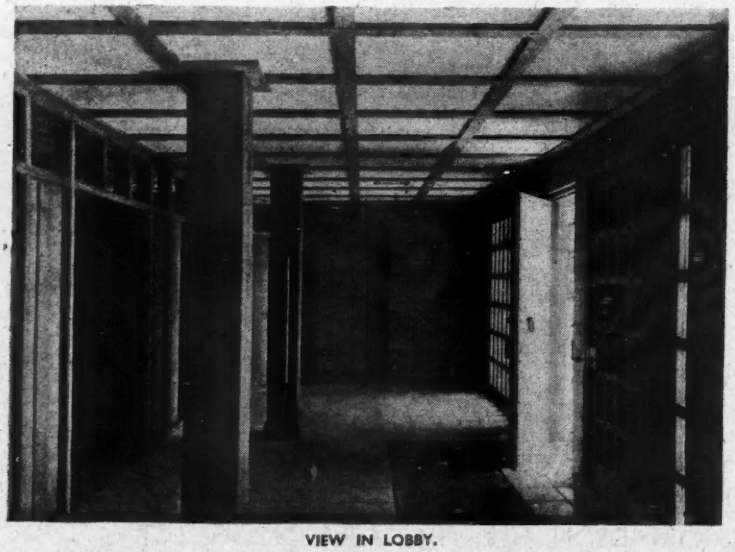
The design is by Professor A. E. Richardson, Hon.M.A.(Cantab.), A.R.A., F.R.I.B.A., of Ampthill, Bedfordshire. The whole of the drawings for the church and the furnishings have been made during the war, some of them personally.

The main scheme has been to preserve the character of the original parish church, which is left standing, and to erect an entirely new building in the churchyard which should harmonise with the silhouette of the existing church.

The accommodation consists of a "hall" type of nave with wide side aisles. There are two small chapels, a Lady chapel behind the high altar, at a higher level, a western gallery for choir and organ, vestries, sacristy, and other features. The natural lighting consists of a clearstorey which is carried between the junction of the roof slopes completely round the building.

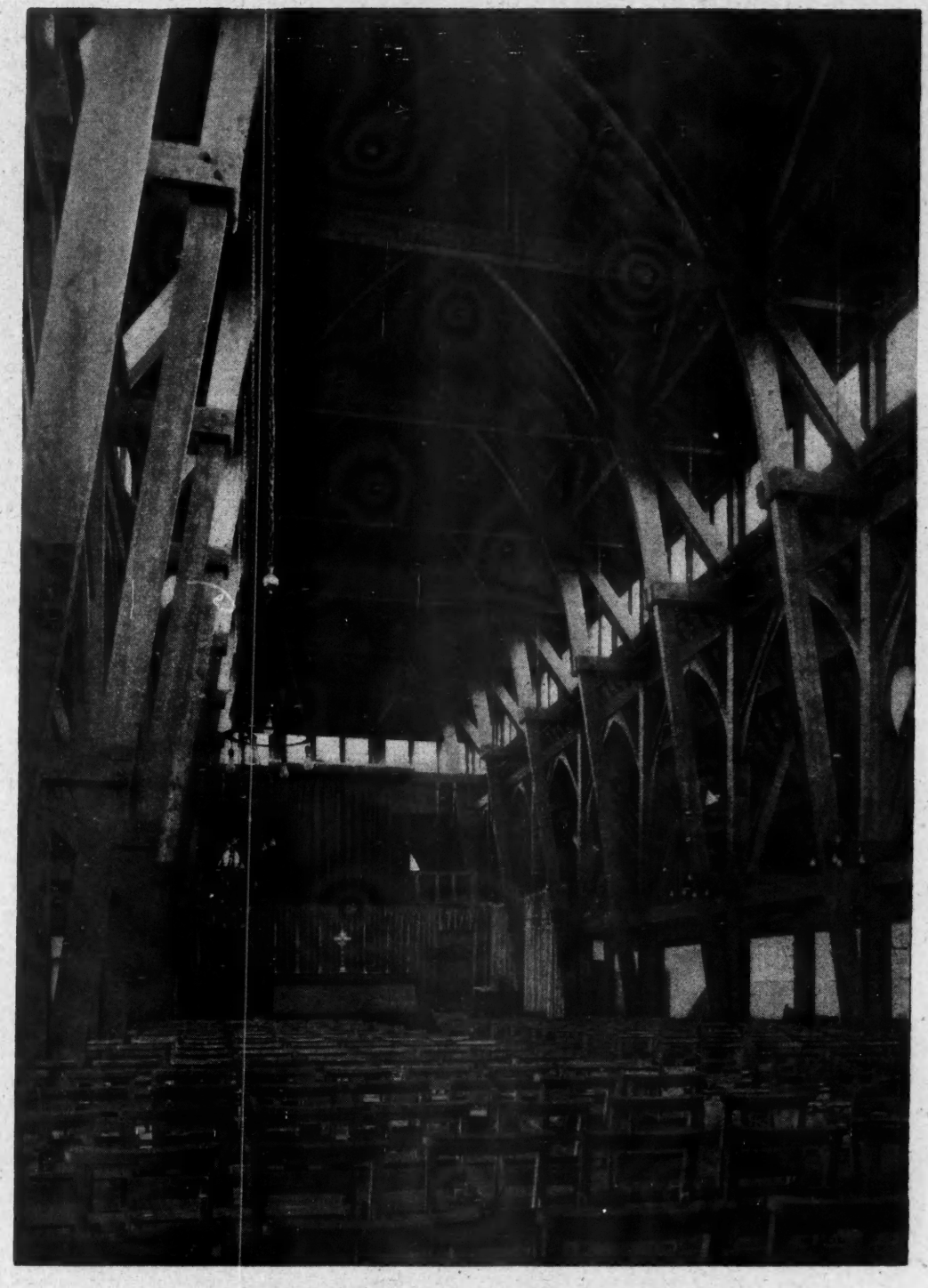
The materials are as follows: Oregon pine for timbers, English oak for doors; Stamford bricks for external walls, Stamford tiles for roofs; copper for flashings, downpipes and gutters; lead glazing for windows; door furnishings specially made; floor tiles, Finedon purpose-made.

The general contractor was Mr. Robert Marriott, of Rushden, Northampton. Electric lighting by A. W. Sclater & Son, Ltd. The church furniture, candlesticks, cross, etc., by John White, of Bedford. Hangings, tester and carpets by Lenygon & Morant, Ltd., W.1.



VIEW IN LOBBY.

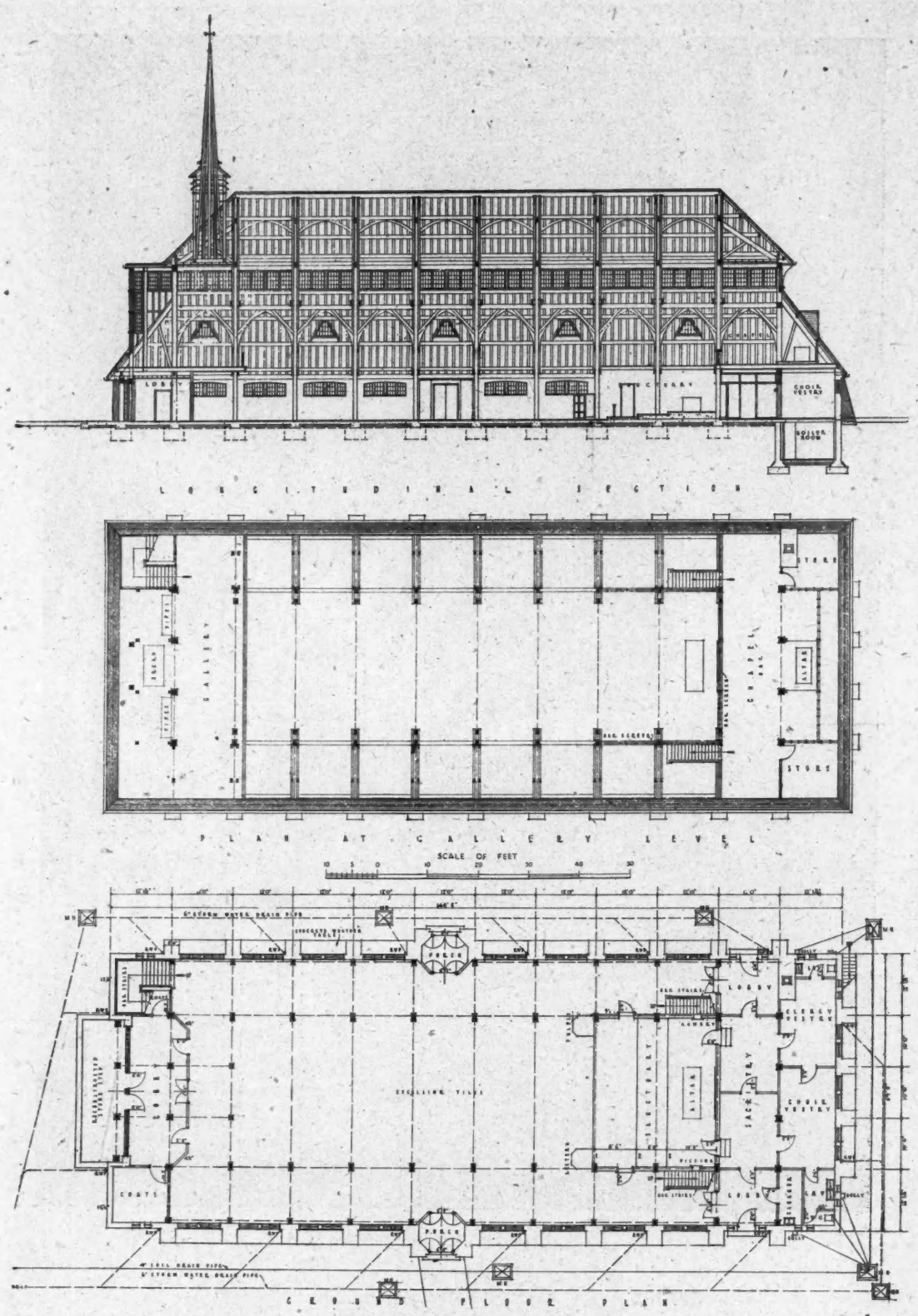
PROFESSOR A. E. RICHARDSON, Hon. M.A., A.R.A., ARCHITECT.



THE INTERIOR, LOOKING TOWARDS ALTAR

CHURCH OF THE HOLY CROSS, GREENFORD.

PROFESSOR A. E. RICHARDSON, HON. M.A., A.R.A., ARCHITECT.

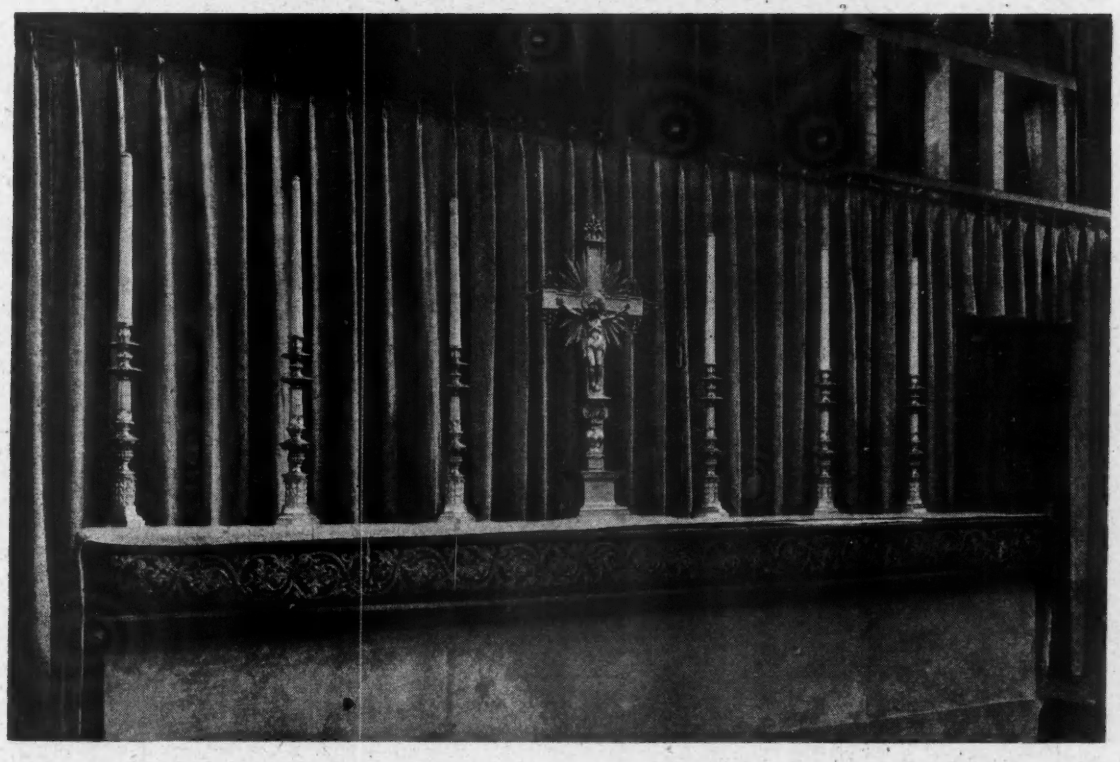


PLANS AND LONGITUDINAL SECTION.

CHURCH OF THE HOLY CROSS, GREENFORD.

PROFESSOR A. E. RICHARDSON, Hon. M.A., A.R.A., ARCHITECT.

THE INTERIOR, LOOKING TOWARDS MAIN ENTRANCE. *Below:* DETAIL OF ALTAR.



CHURCH OF THE HOLY CROSS, GREENFORD.

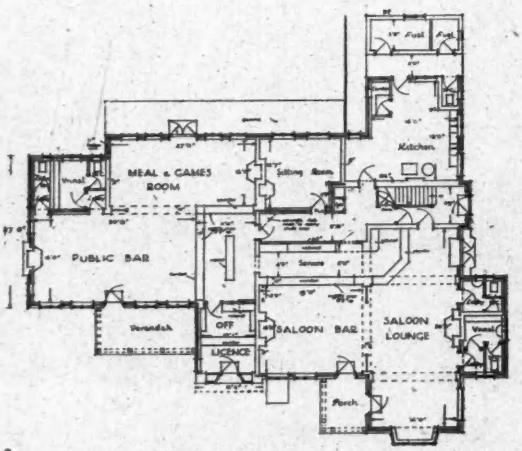
PROFESSOR A. E. RICHARDSON, HON. M.A., A.R.A., ARCHITECT.

MAIN FRONT.

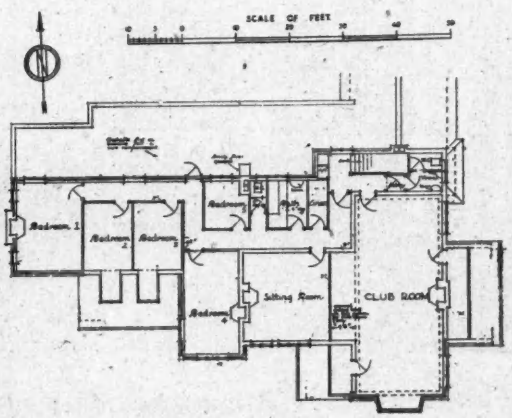
THE "HORSESHOE" INN, UPPER WARLINGHAM

MR. ROBERT G. MUIR, F.R.I.B.A., ARCHITECT

THIS HOUSE REPLACED A SMALL UNINTERESTING BUILDING facing the Green for Messrs. Mann, Crossman & Paulin, Ltd., and an endeavour has been made to keep the country feeling of the district. The house contains a large L-shaped public bar, with a section arranged for darts; off-licence; saloon bar and lounge, a T-shaped room divided by screens. On the first floor there is a large club-room much in demand for local functions. The builders were Messrs. J. A. Pettit & Co., The Green, Upper Warlingham. The elevations are faced with multi-coloured bricks and sand-faced tiles hanging.



GROUND-FLOOR PLAN.



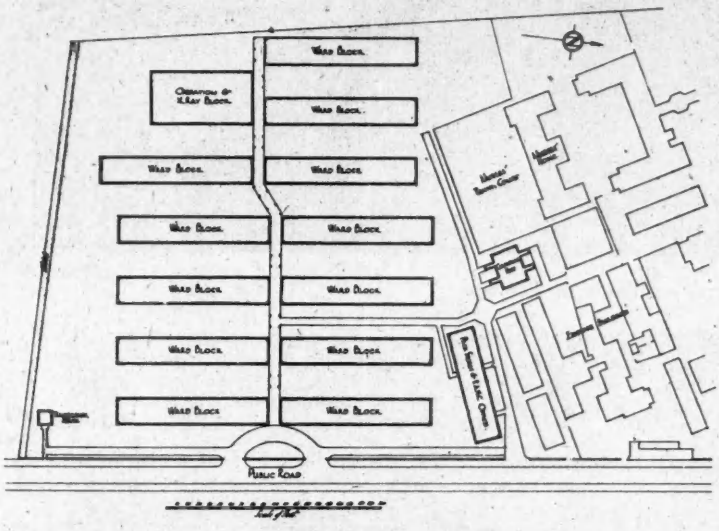
FIRST-FLOOR PLAN.

GOVERNMENT EMERGENCY HOSPITAL

IN SOUTHERN ENGLAND

MESSRS. WILLIAMS, PETTETT & GARDNER, L. & F.R.I.B.A., ARCHITECTS.

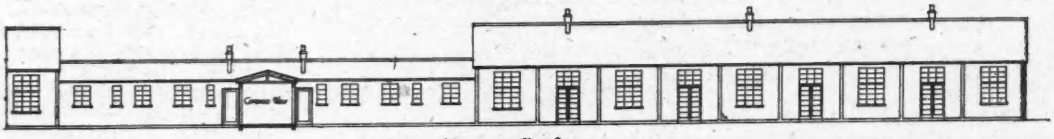
VIEW BETWEEN WARD BLOCKS.


Ward Block
Operation & X-Ray Block
Ward Block
Ward Block
Ward

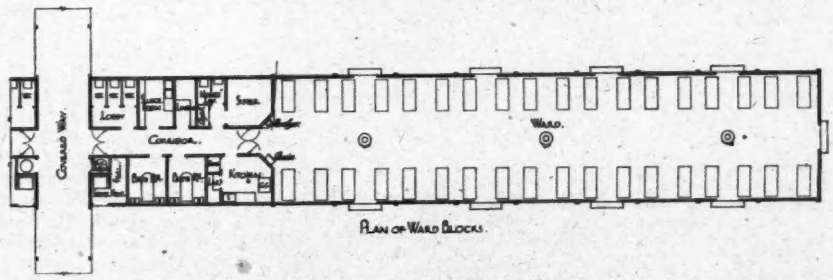
INTERIOR OF A WARD.

Works and Buildings, for which the hospital was erected.

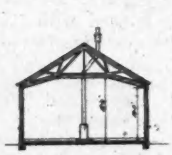
The general contractors were Messrs. Burnand and Pickett, Ltd., Sub-contractors and suppliers were: Pressdee, Ltd., heating engineers; Buchanan and Curwen, Ltd., electricians; Cook and Co., steel constructors; Trussed Concrete Steel Co., Ltd., "Truscon" reinforced concrete, pre-cast beams, etc.; "TenTest" Fibre Board Co., Ltd., specialised construction for lining of walls and ceilings; Standard Pavements, Ltd., terrazzo flooring; and Crittalls, Ltd., metal windows.



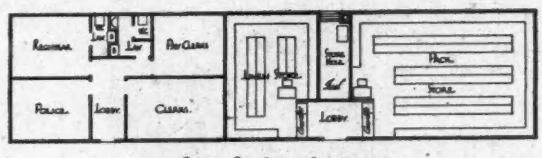
ELEVATION OF WARD BLOCKS.



PLAN OF WARD BLOCKS.



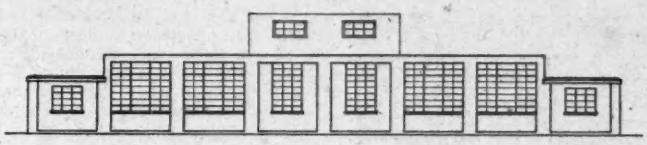
SECTION THRO' WARD.



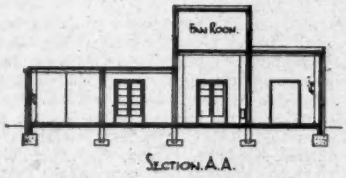
PLAN OF PACK STORE & R.A.M.C. OFFICES.

SECTION THRO' WARD OFFICES

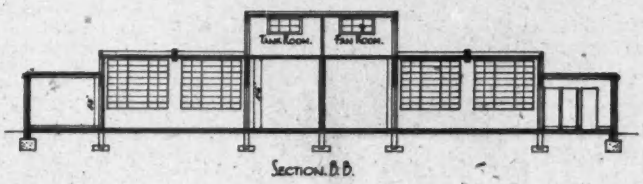
GOVERNMENT EMERGENCY HOSPITAL, IN SOUTHERN ENGLAND.



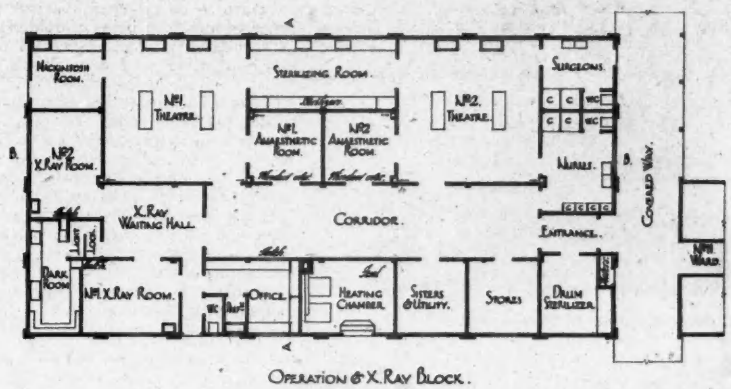
ELEVATION.



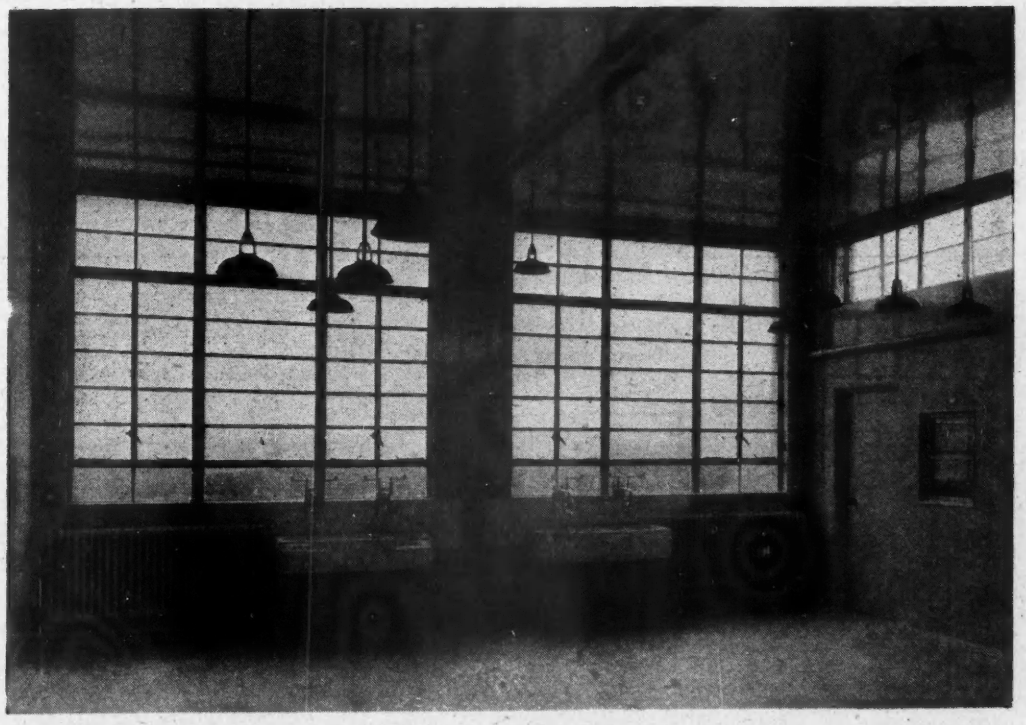
SECTION A.A.



SECTION B.B.

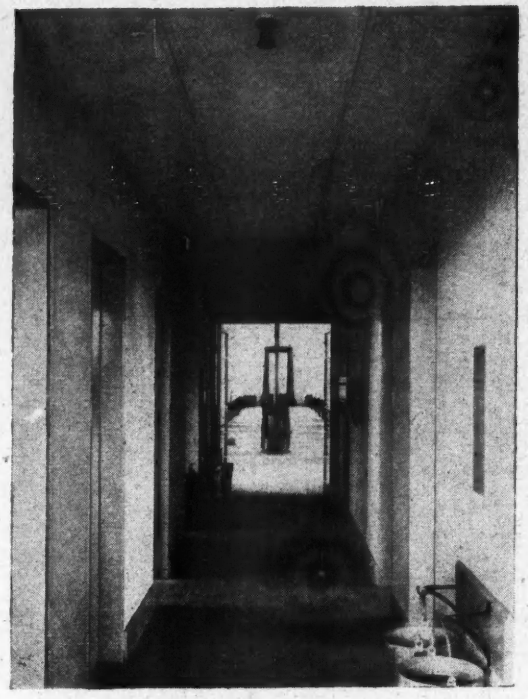


OPERATION & X. RAY BLOCK.



NO 2. OPERATING THEATRE.

MESSRS. WILLIAMS, PETTETT & GARDNER, L. & F.R.I.B.A., ARCHITECTS.



CORRIDOR, LOOKING INTO WARD.

The "spring clip" method of fixing wallboards, used for fixing the TenTest ceilings of the Emergency Hospital, has as the three chief components :—

(1) The metal cover strip of T-section, whose flanges both support the sheets of building board and cover the joints;

(2) The suspension clip which acts as the link between the metal cover strip and the structural framework of the building; and

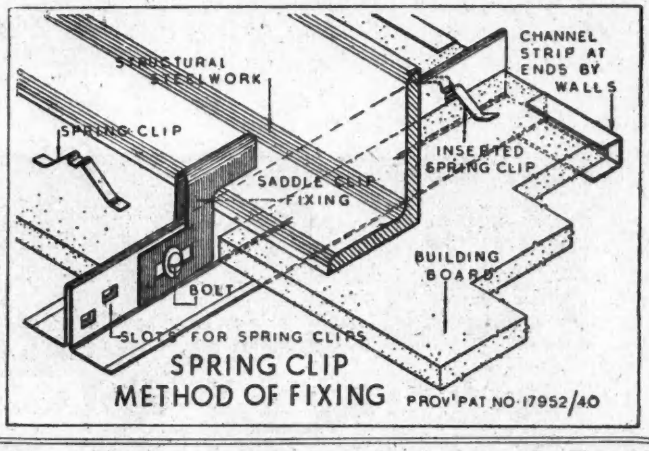
(3) The spring clip which passes through the web of the metal cover strip and holds the sheets of board firmly seated on the flanges of the strip.

There are also various finishing pieces such as noggings for cross joints, with special clips for positioning them, and channel strips for finishings ends of sheets adjacent to walls, etc., and a special strip for closing a run of boards where the final row of clips cannot be inserted from above.

ASSEMBLY.—The metal cover strip is holed to take suspension clips at centres to suit the structural members of the building (*e.g.*, purlins, tie-bars, beams, etc.), and is then fixed in position at approximately 2-ft. centres, the suspension clips varying to suit the type of structural member to which they are to be attached, various sections of steel, timber or concrete members being provided for. Normally, no holding or special shaping of structural members is necessary. The depth of strip used depends on the span, strip 1½ in. deep being used for spans up to 8 ft., 1⅝ in. for spans up to 12 ft., and a special trussed beam for spans up to 18 ft. These spans relate to fixing ½-in. TenTest insulation board. Heavier boards such as plaster board or Kimoloboard reduce the permissible spans. The board, cut to 2 ft. width, is then laid in position on the flanges of the cover strip, and, as each sheet is positioned, the saddle-shaped spring clips are inserted through the appropriate slots in the web of the cover strip, (See diagram.) Slots in the web at two levels, in conjunction with two depths of spring clips, provide for any thickness of board up to ⅝ in. Once a clip has snapped into place considerable strength must be exerted to dislodge it. This method (also applicable to wall linings and partitioning) may be employed on existing buildings.

A GOVERNMENT EMERGENCY HOSPITAL IN SOUTHERN ENGLAND.

MESSRS. WILLIAMS, PETTETT & GARDNER, L. & F.R.I.BA., ARCHITECTS.



UNITED ARTISTS' EXHIBITION AT THE R.A.

THE United Artists' Exhibition at the Royal Academy provides an opportunity for those who are able to indulge their taste to acquire pictures and at the same time help the Duke of Gloucester's Red Cross and St. John Fund and the Artists' Benevolent Institution. Prices range from two guineas to a thousand. The exhibits come from 27 societies. Half the price of works sold goes to these funds, and, in addition, gate money in excess of expenses is also given. The more critical should find some work of interest among the 1,478 examples on view, which also include sculpture, black-and-white work and etchings. A small number of Academicians contribute. The exhibition contains numerous pleasing little landscapes, still-life and flower subjects in oil and water-colour suitable for the modern flat or small modern house. Works of architectural interest are contributed by Mr. Wm. Walcot. No. 187, "St. Paul's: October, 1940," is a fine drawing after bomb damage, the artist conveying a sense of solemn grandeur. Mr. P. J. Westwood shows a war damage picture, No. 180, "St. Paul's from Queen Victoria-street," in pencil and colour wash. The subject is depicted with accuracy and so becomes a true record. Mr. Leonard Squirrell's exhibit, No. 1265, shows a charming and desirable aquatint of Stoke-by-Nayland.

Mr. Reginald Hallward's subject, No. 481, "Winter in Dyffwyn, N. Wales," a water-colour, conveys the atmosphere of a chill winter day and is attractive by its simplicity and non-assertiveness.

Miss Lucy E. Pierce, in No. 331, shows a fine pencil representation of the Nave, York Minster. An attractive, unlaboured nude study is No. 548, contributed by Mr. T. C. Dugdale, A.R.A.

Among flower pictures, Irene Rylands's "Primula," No. 973, is one of the most attractive in grouping and colour. The lithograph "Marrow," No. 461, by Miss Patience Hallward, is a clever drawing of a difficult subject, the foliage and flowers being drawn with much skill.

Mr. Alan Howes contributes two attractive sculpture groups, No. 597, "The New Age Statuette Group," and No. 170, "The Finding of Moses"—both good examples of his sound work.

COMING EVENTS

Tuesday, January 13.

LONDON MASTER BUILDERS' ASSOCIATION.—Annual Luncheon. Connaught Rooms, Great Queen-street, W.C.

HOUSING CENTRE LUNCH, Mr. Tom Harrisson "Propaganda for Town Planning." 13, Suffolk-street, S.W.1. 1 p.m.

Wednesday, January 14.

ROYAL SOCIETY OF ARTS.—Dr. E. F. Armstrong on "The Post-War Home: Materials Old and New." Adelphi, W.C. 1.45 p.m.

Thursday, January 15.

INSTITUTION OF ELECTRICAL ENGINEERS.—Mr. W. Gilchrist on "Problems in application of Electrical Heating to Residential and Commercial Premises." Savoy-place, W.C.2. 4 p.m.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

More Salvage Ironwork.

To the Editor of *The Builder*.

Sir,—The need for ironwork to aid the national effort will be apparent to all readers of *The Builder*. Now that every stretch of iron railings has been scheduled, and only outstanding examples of good type are to be kept, it becomes apparent that other fields must be explored. We should be prepared to sacrifice the following examples of cast-iron ugliness:—

(a) Ungraceful lamp standards.

(b) Disused electric tramway uprights.

(c) Countless ill-designed wrought-iron brackets and signs.

(d) Obsolete iron and glass shelters, which are a menace in air raids.

(e) Redundant balcony railings other than legitimate examples.

(f) Victorian bollards.

(g) Engineers' paper weights, such as disfigure many bridges.

(h) Sheet iron and enamel advertising signs.

(i) The redundant lamp standards and bronze candelabra which clutter many recent buildings.

A great drive should be undertaken to schedule all the ridiculous wrought-iron excrescences which represent the misplaced zeal of the last century. Is it too much to ask for the abolition of Belisha beacons? The latter might be cut off at the pavement level to receive a stud light in the future.

The Ministry of Works and Buildings possesses the organisation and the powers to deal with this vast supply. It is to be hoped that notice will be taken of this appeal in authoritative quarters.

George Eginton Carruthers.
West Bromwich.

John Rawstorne's "Designs in Architecture."

To the Editor of *The Builder*.

Sir,—The recent interesting article in *The Builder* by Mr. F. R. Jelley on Richard Elsam's "Essay on Rural Architecture" reminds me that there is in the Birmingham Assay Office Library a handbill announcing "Proposals for publishing by Subscription, a Set of Designs in Architecture, in which will be introduced a great Variety of Plans, Elevations, and Sections of Buildings, Public and Private, which have been erected under the immediate Inspection of the Architect. The Plates to be engraved in Aquatinta, and finished in a superior Style, forming Two Volumes in Quarto, with Descriptions in Letterpress, and Estimates of the Plans, calculated upon moderate Terms, for the Counties of York, Lincoln, Nottingham, Warwick, etc., etc." The price to subscribers was fixed at £4 4s. in boards, and the author was John Rawstorne, of Doncaster. Accompanying the handbill is a letter to Matthew Boulton, dated February 14, 1800, in which Rawstorne invites Boulton to become a subscriber. Neither the British Museum nor the R.I.B.A. Library appears to have a copy of this book, and I should be greatly obliged for any information with regard to it.

John Rawstorne received his architectural training in James Wyatt's office. In 1788 he came to Birmingham, where he designed the Blue Coat School and the Cavalry Barracks, both now demolished, and the Crescent, which was never completed. In 1793 he designed the Sheffield Infirmary, of which an engraving by F. Jukes was announced as being on the point of publication in January, 1798. Later he removed to Doncaster, where he published the "Set of Designs in Architecture" mentioned above, and where, possibly, some recollection of him and of his work may still exist. If this should be so, I should be very glad to be informed of it.

Benjamin Walker,
Hon. Librarian, Birmingham
and Five Counties A.A.
8, Newhall-street,
Birmingham, 8.

What to do with Advertisement Hoardings.

To the Editor of *The Builder*.

Sir,—At the risk of being considered an iconoclast, I am writing to ask your opinion on the subject of advertisement hoardings. The need for second-hand timber is very great, and it would be of advantage to the building industry, engaged in Government work, if some of the timber standing idle in all parts of the country could be brought into use. I refer to the deals and quarterings which support the huge advertisement hoardings in the vicinity of London and other great towns. The boarding also might be used. When it is decayed, or unserviceable for reuse as building material, the wood might be pulped to assist the paper shortage. The whole issue is one for the Ministry of Supply.

Of course, the great advertising interests would rise to oppose the confiscation of their derelict property, but if the poor are to be penalised, why not the rich corporations, who have contributed so much to ugliness and despondency? It is up to the advertising industry to invent neater and less obtrusive posters if an enlightened posterity desires such things.

Lawrence Gadsby,
late Flight Captain, R.A.F.
Wendy, Cambs.

Restriction of Civil Building.

To the Editor of *The Builder*.

Sir,—The incidence of restrictions placed upon private building work by the Ministry of Works and Buildings added to the fact that Government orders are restricted to only a few contractors in a large way of business, prompt me to submit the following with a view to alleviating an unnecessary state of unemployment both of employers in a less conspicuous position as well as a large body of still useful workmen.

A situation has long since been reached under which a considerable amount of useful work has to be entirely abandoned because of the restriction to £100 total expenditure in any one year to any one property.

The work now being entirely neglected is that of adaptation of existing domestic buildings to provide accommodation for those requiring smaller homes, and for others who are entirely without homes of their own and whilst such work might involve a fair amount of labour, the use and purchase of new materials could be drastically limited.

The existing maximum of £100 expenditure was undoubtedly calculated by the Ministry to represent £50 for labour and £50 for materials, and my proposition is that the £50 for materials shall be rigidly adhered to, but that larger scope should be conceded with regard to the amount to be expended in labour, which latter might well be £250.

In work of adaptation of existing buildings, it can easily be seen that the bulk of materials would be those rescued and adapted from the present structure, a process which naturally involves a higher percentage of labour.

It would also follow, now that calling-up regulations are in force for all able men, that the workmen outside the Government categories would consist of elderly men and others with physical defects which render them exempt from National Service.

If smaller builders are to be debarred from finding employment for such men, they must naturally become a direct charge on the National Exchequer, whereas both they and their employer can continue to make contribution thereto.

If the Ministry could be prevailed upon to adopt this modification of their present restrictions, I am convinced that it would prove of great service to all concerned in the uncertain period which we have not only reached, but which must become more serious in the near future.

Robert F. Seward
(Jones and Seward, Ltd.).
Bournemouth, W.

"Craftsmanship after the War."

To the Editor of *The Builder*.

Sir,—Apropos the letter of Mr. Luke Fawcett on "Craftsmanship after the War" (*The Builder*, December 19, 1941) I would call attention to the necessity of returning to the system of apprenticeship which in the main provides the nucleus of craftsmen. Going back over a period of 54 years in the building trade, I have noticed the gradual falling off of the elements of fine craftsmanship and remember a most appalling case some seven years ago in connection with a very large building in London.

A craftsman and a fine modeller had prepared a model and mould of a very large coat of arms and emblem; this was taken up on the scaffold some 80 feet up, and much to my surprise when I visited the position, after some pencil lines had been put upon the stone, it was being cut away with a machine of the compressor type, and when finished there was no sign of the fine craftsmanship of carving. The

absence of craftsmanship on another big job in the north makes one wonder whether, if craftsmen are produced, they will be used.

Of latter years elaborate detail by architects has been cut out, due to modernism. You may cultivate the craftsman, but is the architect going to use him? He can only do that if he has been trained in the art of architecture and all it implies. For many years it has been the practice (perhaps not on all buildings) to take the line of least resistance, and get the job done quickly with the least possible trouble.

The main object for Mr. Luke Fawcett to pursue is to get the Government to establish Schools of Building throughout the country and let the lads put three or four years in intensive training ready for the post-war period. But I am not so sure that the post-war period will not again be one of machinery versus handicrafts, and the machine will leave the craftsman high and dry; the test may well be: which makes most profit?

The real issue is a renaissance with the two parties concerned, designer and craftsman. The will and desire to make craftsmen is one thing, but the desire to use or not use them is more than of passing interest to those who suggest so many things after the war, which in nine cases out of ten come to naught. G. W. HARRIS.

43, Leopold-road, N.W.10.

TO THE EDITOR OF *The Builder*.

SIR,—Mr. W. H. Holbrook's agreement with Mr. Luke Fawcett's attitude to the policy of payment by results prompts a certain amount of disagreement from a craftsman with 35 years' experience in work connected with "beautiful" as well as utilitarian buildings.

Surely the basis of all normal building work is "payment by results,' every item in a bill of quantities being directly affected by the amount of work the workman can be expected to perform, and his rate of pay.

Trade unionism has always seemed to be limited by a policy of taking advantage of the ability to establish a stable rate of pay in return for the payment of certain dues by the members, little or no regard being paid to whether or not the worker was skilled in the trade. This tended to bring the standard of workmanship down to that of the poor worker, since the willing and competent man was treated in exactly the same way as the shirker.

Mr. Fawcett is to be congratulated when he appeals for the revival of craftsmanship, which probably can come more quickly from the efforts of the unions themselves than from any other cause. If the unions can be induced to recognise the grading of workmen, within a basis of fair treatment for all, and encourage the poorer workman to qualify for the higher rates, they will not only justify their existence, but will play an important part in the future of this country.

There will always be the exceptional job to absorb the individualist, be he architect or craftsman, where the time spent in executing work cannot be brought to any workable standard, but these jobs are the exception. The greater proportion of building work can be brought to a reasonable basis as to quality and quantity of work that can be expected from the operative.

Machinery nowadays is indispensable, and we would be wise to plan to exact the utmost benefit from labour-saving devices and new materials, and encourage everything likely to result in an economically higher standard of living for everybody, the worker included.

Once this war is won, it is obvious that the building trades will be called upon to provide the maximum of comfort and enjoyment for the greatest possible number of people in the shortest possible time, and that to do this they will need all the help that new methods and new materials can bring to bear, especially in view of the limitations there must be to the amount of materials it is possible to import from abroad for a long period following the end of the war, and the desirability of our providing the maximum amount and widest distribution of employment.

These developments must give building craftsmen all the scope they will need for many years, without their having to resort to establishing unreasonable limits to the amount of work they will do, or to depend upon closely guarded preserves as between one trade union and another.

Might it not be expected that the application of brains, imagination and industry to this all-important work of reconstruction, and the obvious needs of adaptation to take care of present-day and future requirements, will open up new opportunities for the worker, as well as for the professions, manufacturers, etc., not previously possible, and generally prove to the general benefit of the country, as well as adding to the prosperity of everybody concerned with the building world.

Let us hope that this work will not be harassed or hindered by our finding it has been anticipated by vested interests, whether professional, financial, trade union, official, or other combination, who have dug themselves in and made preparation to hold the country to ransom. GEO. CARPENTER.

Surbiton, Surrey.

[Other correspondence is unavoidably held.]

ARCHITECTS' REGISTRATION COUNCIL

THIRTY-NINTH ORDINARY MEETING.

THE thirty-ninth ordinary meeting of the Architects' Registration Council was held on December 12, 1941, at 66, Portland-place, London, W.1, Mr. Sydney Tatchell (Chairman), occupied the chair. We take the following extracts from the official report.

A.A. Conference on Unification of the Profession.

The Registrar reported that, in accordance with the instructions of Council, he had attended the conference of the Architectural Association and given such information as was required of him without taking any part in the discussion. The conference was also attended by representatives of other architectural associations, as follows:—The Architectural Association, Inc., Association of Architects, Surveyors and Technical Assistants, Incorporated Association of Architects and Surveyors, Institute of Registered Architects, Modern Architectural Research Group, Town Planning Institute and "Unattached" Architects.

Advertisement of Services as Architect.

With reference to the resolution of the Council at their meeting on October 24 to remove from the Register for a period of one year the name of an architect who had been found guilty by the Discipline Committee of disgraceful conduct in inserting an anonymous advertisement in the Press offering his services as an architect, the Council heard representations from the architect concerned, who tendered his humble apologies and undertook not again to be guilty of unprofessional conduct. The Council, in pursuance of Section 7 (5) of the Principal Act, after due consideration, resolved that their resolution to remove his name from the Register be withdrawn and in place therefor resolved that he be severely reprimanded.

Admissions to Register.

One hundred and eighty persons recommended for admission to the Register were admitted.

Twenty persons recommended for rejection had not proved to the satisfaction of the Council that they were entitled to registration.

Institute of South African Architects: Recognition of Examinations:

The following Examinations were recognised by the Council.

Final examination for the Degree in Architecture of the University of the Witwatersrand.

Final examination for the Degree in Architecture of the University of Cape Town.

Final Examination for the Diploma in Architecture of the University of Cape Town.

Final Examination for the Diploma in Architecture of the University of the Witwatersrand.

Final examination for the Certificate in Architecture of either the University of the Witwatersrand or the University of Cape Town.

Nottingham School of Architecture—College of Arts and Crafts, Nottingham. Diploma Final Examination.

Northern Polytechnic School of Architecture, London. Diploma Final Examination.

Retention Fees Unpaid: Removals from the Register:

The Finance and General Purposes Committee reported that of the 584 persons whose retention fees were unpaid on October 10, 444 had still not paid their fees, as compared with the figure of 330 at the corresponding date last year. Two hundred and eight had been struck off the Register in accordance with the Council's instructions, as compared with 222 struck off in 1940. The balance of 236 was made up as follows:—

On Active Service Suspense List	182
Resident Overseas	35
In enemy occupied territory ...	11
Reported missing or prisoners of war	8
	236

A HUNDRED NEW TOWNS FOR BRITAIN

By A. TRYSTAN EDWARDS.

RECENT EVENTS have made it clear that nothing but a bold and imaginative scheme of reconstruction will suffice when the period of aerial bombardment comes to an end, and the creation of the Ministry of Works and Buildings appears to indicate that the Government has accepted this conclusion. As Lord Reith, the head of this new Department, has welcomed proposals for the rebuilding of Britain, from whatever quarter they may come, the moment now seems opportune to direct public attention once more to the Hundred New Towns' scheme, the only national plan in terms of building which has yet been brought forward in this country. It is here suggested that the arguments originally used in arriving at the scale of the scheme, its character and the means of its realisation, so far from being invalidated, have actually been rendered more convincing by the trend of events since the beginning of the war.

"Seven Years Too Soon."

The Hundred New Towns scheme was formulated in 1933, and, although it attained a considerable amount of publicity, the proposals suffered from the disadvantage that they were submitted to the general public seven years too soon. There was little inclination at that time to consider any radical solution of the problems of town and country planning. Nevertheless, an association was formed to promote the scheme, researches in connection with it were pursued with undiminished vigour, and in 1937 this association was invited to give evidence before the Royal Commission on the Geographical Distribution of the Industrial Population.

Origin and Scope of the Scheme.

The scheme had its origin in an attempt (*a*) to relieve the congestion in London and other large cities; and (*b*) to clear the countryside of scattered buildings which not only spoil the landscape, but are a hindrance to agriculture.

The scheme involves the migration of 5,000,000 people—*i.e.*, one-ninth of the population of Great Britain, to new towns each of approximately 50,000 inhabitants. It is suggested that the migrants should include:—

Two million from London and its suburbs.

One and a half million from other large towns.

One and a half million from areas of sporadic development where several hundred thousand ill-placed houses should be demolished.

Of the total amount of work involved in the scheme, it is proposed that half should be allocated to existing towns and villages, and the other half to the new towns. In a 12-years' programme, the execution of which would cost £2,000 millions, about half the money expended on the scheme would be on land, roads, factories, shops, public buildings, etc., and the other half on houses, a million of which would be in the new towns and another million in the existing towns. The amount of land required would be less than 1-250th of the whole of Great Britain. Moreover, by freeing the countryside of buildings exemplifying an undesirable architectural "sprawl," the scheme would release for agriculture far more land than the area occupied by the new towns, each of which, it is calculated, would save England 200 miles of "ribbon development."

First Claim of Existing Communities.

When the bombardment is over, the first task will be to restore and improve the existing towns. Some of the larger cities can only be satisfactorily remodelled if 10 per cent. or more of the inhabitants can be persuaded to migrate. The war time evacuation schemes, however, should greatly aid in this process of decentralisation by accustoming large numbers of people to seek new homes. But the benefit would not only be confined to the big cities, because £1,000 millions, fairly divided between all the existing towns and villages in Great Britain, would admit of an expenditure on new building works amounting to £25 per unit member of the population. Thus a town of 20,000 inhabitants would be entitled to an expenditure of £500,000 (at pre-war rates for building costs), if it were to have its proportionate share of the work which the building industry is able to accomplish in the 12 years after the war. This is, of course, on the assumption that during this period the other half of the capacity of the building industry is employed on the new towns. After the latter are completed, the building industry would be free to continue whatever work is still needed to improve the existing towns and villages. The requirements of the bombed areas would, of course, receive first consideration, and a special building grant would need to be allowed for their benefits, thus diminishing to some extent the amount of building work which could be shared between the rest of the country during the initial period of the scheme.

THE CIRCLES INDICATE AREAS OF TEN MILES DIAMETER, IN EACH OF WHICH A NEW TOWN OF ABOUT TWO MILES DIAMETER MIGHT BE SITUATED

Urban Decentralisation to Completely New Towns.

It is considered desirable to design new towns rather than to add to small country towns or villages because:—

(*a*) By this means there is afforded a much-needed opportunity to give absolutely free expression to the needs of our own age.

(*b*) It takes *less* land to start *de novo* by designing a compact town than to add to the suburbs of the existing towns where the tradition of architectural sprawl is already established.

(*c*) A method of decentralisation which took the form of adding from ten to twenty thousand people to small towns possessing a unique character of their own would be an act of vandalism. These charming old towns and villages are fitted to sustain only a moderate and natural growth and their social balance would be completely upset by a sudden large influx of population.

(*d*) It would be extremely difficult to arrange for the moving of 5,000,000 people, perhaps to several hundred existing towns and villages, no two of which could offer the same advantages to their inhabitants. The more attractive places would tend to have a disproportionate share of immigrants while the remainder might be neglected. On the other hand, a degree of uniformity in the size and social structure of the new towns would greatly facilitate the task of peopling them; for certain minimum benefits could be provided in all of them.

Suggested Placing of the New Towns.

The scheme provides for 75 new towns in England, 16 in Scotland and nine in Wales. A provisional siting of the new towns is suggested (see accompanying map); but although a good deal of research has been expended upon this, the allocation of the towns to the various counties is put forward only as a subject for discussion, and the scheme does not stand or fall by any particular placing of the new towns. Naturally, the proposal takes account of the need to correlate all the facilities for transport whether by road, rail, inland waterways or by air. As might be expected, full use is made of the electric grid, and the majority of the towns would obtain power for industrial and other purposes from that source. Moreover, it is borne in mind that Britain is a maritime nation, and accordingly as many as 35 of the towns are situated on the coast. These new seaside places would not only help to accommodate the several million additional people who will enjoy "holidays with pay" after the war, but should also provide valuable centres for youth training. In discussions concerning decentralisation, it is usually assumed that new towns may be of two kinds—completely self-con-

tained towns and *satellite* towns which are subordinate to a neighbouring big city. In the scheme here proposed, all the new towns will be of the first kind and, indeed, a special effort has been made to place them in such position that they will *not* be subject to the tutelage of an old-established and powerful municipal authority.

Industrial Nucleus for New Towns.

Before trying to form the industrial nucleus for the new towns it is necessary to obtain an approximate estimate of the number of productive workers who would be needed for this purpose. Therefore the first question to ask is: "What is the normal proportion of productive workers to the rest of the population in a town of 50,000 inhabitants?" By reference to the Census it has been ascertained that, on the average, in industrial towns of between 40,000 and 60,000 inhabitants, not more than 15 per cent. of the people are employed on work which is usually described as "productive," while the remainder consists of those engaged in transport, distribution, building, domestic and other services, while, of course, it includes children and old people. Hence, in each of the new towns, there should be about 7,500 productive workers. As, however, the scheme is intended to promote a well-balanced economy, it is proposed that of these 7,500 productive workers, about 2,500 should be engaged in agriculture. Thus, in order to establish a suitable industrial nucleus for the hundred new towns there would need to be a migration of half a million factory workers in the course of 12 years, or less than 50,000 in every one year. It may be noted that the amount of annual industrial decentralisation indicated by such a figure is no greater than that which, according to statistics of the Board of Trade was actually taking place in the inter-war period. But under the arrangements proposed, the new factories would go to properly planned towns rather than to the "ribbon roads." Moreover, as the scheme represents a migration of only one-ninth of the population of Great Britain, and as a third of the productive workers in the new towns will be engaged in agriculture, the number of factory workers required for the industrial nucleus of these towns will be less than a twelfth of the total number in the country.

Other Aspects of the Project.

Naturally, the Hundred New Towns' scheme has many aspects which cannot be discussed within the compass of a short article. For instance, it is of great importance to decide upon the architectural attributes of the proposed new towns, the means whereby the migrants will be induced to go to the towns in the right proportions of occupation so that well-balanced social communities will result, and the appropriate division of the resources of the building industry between work on the existing towns and on the new towns. And, lastly, in the event of the proposals being endorsed in principle by public opinion, the Government would need to be endowed with certain new financial and legislative powers.

FEES

By F. R. JELLEY.

In those remote romantic days, when architects wore cylindrical top hats and I was an idle apprentice, it was considered extremely vulgar to mention in public the subject of fees.

In fact, Guillaume, who in 1880 revised and published a popular edition of Wightwick's text book of "Hints to Young Architects," had omitted any reference to the matter.

This strange secretiveness on so important a subject created an erroneous impression. The great outside world had been told by romantic souls nurtured on William Morris and Ruskin that an old building is always a sound affair, constructed by those stout fellows, the traditional English craftsmen, with superb local material, instead of being usually a mass of dried mud and brickbats upheld with thick layers of fusty wallpaper.

Unfortunately, the great outside world had also been led to believe that architects were artists who lived only for their art, and in the Victorian era most artists were supposed to dwell in attics where they worshipped the rays of the rising sun and fed on fresh air.

I do not know when this odd superstition disappeared, but its lapse into obscurity was hastened when hordes of young architects of my own generation descended on London from the provinces with lots of enthusiasm and very little money and started to knock the Ark out of Architecture.

These high-spirited invaders claimed the recognition they deemed to be due to professional men. They denied all knowledge of shorthand or typewriters or book-keeping, and refused to be called improvers or architects' clerks. They smoked large calabash pipes in the drawing offices of the famous. They whistled as they worked and sang rollicking songs about "Darling Mabel" and "the saucy little bird on Nellie's hat," for they were young and life was very good.

This boisterous behaviour shocked the Victorians, but it shook them. In course of time they tossed aside their cylindrical top hats, shaved off their beards and whispered to one another glad tidings of a strange new cult called Business Administration.

Wizards skilled in the mysteries of book-keeping and the ways of commerce penetrated into offices, instructed architects in the use of the telephone, and persuaded them that phrases such as "cab hire" and "remuneration" were now obsolete. Card indexes appeared. Expensive systems for saving bits of tracing paper were devised. Elaborate schemes were introduced for filing and preserving drawings in dust-proof portfolios and tin tubes.

However, so far as I am aware, nobody ever produced a scheme for finding a drawing that had been filed in the wrong portfolio, and the peak period in this phase of business administration seems to have been reached when a peer of the realm received from his architects a typewritten account for professional services endorsed:

WITH COMPLIMENTS.
E. and O. E.
OUR REF. B/J/T.

As we live, nowadays, in an age so commercial that infallible remedies for blushing can be purchased by any bashful architect for threepence (postage extra), there is no reason why this subject of fees should not be discussed boldly and openly.

Indeed, architects may have leisure to do so, for everybody who does any work costing more than £100 after January 1 without obtaining a licence from the Ministry of Works and Buildings will, it is said, be liable on summary conviction to imprisonment for a term not exceeding three months or a fine not exceeding £100 or both and, on conviction or indictment, to imprisonment for a term not exceeding two years or a fine not exceeding £500 or both.

Whilst languishing in jail, lawless architects who have persisted in building something might, therefore, care to pass the time by studying the details which were recently published of the new scale of professional fees allowed by the War Damage Commission.

At first sight the scale seems so munificent that architects may well exclaim with the distressed maid in the melodrama, when she is rescued from starvation by the hero and his faithful henchmen, "Oh! Sirs. You are too, too, generous!"

A more careful perusal of the details of the services that are required in return for these fees will, however, convince most people that, under present conditions, it may be extremely difficult to earn them. And, finally, it must be established that unless the employment of an architect is "necessary" within the meaning of the War Damage Act, the Commissioners have no power to pay his fees at all.

Architects are among the most modest of men but, quite naturally, they consider their services to be indispensable to the community, although the community may not concur in that view. When, however, the average layman receives from the War Damage Commissioners a letter expressing regret that his property has suffered damage (C 2/V) accompanied by a Form of Certificate (C 2A) which can be read as a definite invitation to him to employ an architect, it is surely unfair to inform the layman, when his claim is settled on the basis of his architect's certificate, that the employment of an architect was unnecessary.

In all cases where such employment is deemed by the War Damage Commissioners to be unnecessary, it should be quite easy for them to delete all reference to architects from the Form of Certificate before they send it to the building owner. The building owner will then be denied the pleasure of thinking that he can secure the services of an architect at the expense of the State, and architects will be spared a good deal of unnecessary trouble and expense in refuting, once again, the quaint Victorian legend that they feed on fresh air.

FIG. 1.—FARM SILOS 30-FT. AND 12-FT. HIGH. BOTH ARE TO BE EXTENDED TO A HEIGHT OF 45 FT. NEXT SEASON. THE BANDS ARE, OF COURSE, DESIGNED FOR THE ULTIMATE HEIGHT.

FARM SILOS

It has for some time been the policy of the Ministry of Agriculture to encourage farmers to make silage from grass and other green crops in order to supply winter feed for livestock, and in consequence to reduce the shipping and exchange needed to import feed on the pre-war scale. The making of silage is a chemical process, the success of which depends upon maintaining in the green material a certain degree of heat while fermentation takes place, after which the silage must be kept air-tight. Bad-smelling and useless silage is generally due to the temperature of the silage being too low or too high during the fermentation period, or to the access of air at a later period. With a proper ensilage process and storage in an air-tight container, silage will keep in good condition for years. Molasses are sometimes added because they add certain proteins in which the green material is deficient.

The two factors controlling the shape of the silo are economy in erection and an absence of corners from which it is difficult to exclude air when packing the silage. As the circle encloses the greatest area for a given length of perimeter, and as a circular wall has no angles, farm silos are always circular in shape. The size of the silo depends upon the quantity of silage required, which in turn depends upon the number of cattle or other livestock to be fed. In this country we are chiefly concerned with dairy cows, and, according to its weight, a cow will need from 30 to 40 lb. of silage a day. According to the season, there are from 180 to 240 days a year when dairy cows have to be fed on artificial or preserved feeding stuffs. A herd of fifty cows will, therefore, need, allowing for some wastage, about 180 tons of silage a year.

Although there are said to be about half a million silos in use on farms in the United States, there were comparatively few in this country before the outbreak of war. Since then, however, they have been built apace, and many hundreds have been erected in the last few months. Most of these are low silos, costing between £20 and £30, and holding from 20 to 30 tons of silage. Usually they are from 10 ft. to 15 ft. in diameter by 9 ft. or 10 ft. high, and built of concrete units. Other silos have been built of temporary materials, including wood and wire netting lined with waterproof paper to make them airtight and watertight. In a large number of cases silage has been made in a hole in the ground. The roofs may be made of any weatherproof material, thatch being preferred in many districts.

If we consider a herd of 50 cows, it will be seen that, to provide the total requirements of 180 tons, from eight to ten of these small silos will be necessary. It would seem, therefore, that low silos are of an experimental nature, enabling farmers to make a certain amount of silage at a small initial cost. There will probably always be cases where only small quantities of silage are required, such as on poultry farms, for feeding a few horses, etc., but when the ensilage process is adopted by dairy farmers something more economical is required. It is obviously uneconomical to build ten separate foundations when one stronger one will do, or to make ten roofs (which have to be removed and replaced each time some of the silage is used) when one permanent roof will suffice. It is also wasteful of land to build, say, eight 10-ft. diameter silos when their contents can be stored in one higher silo of the same diameter. Further, the tall silo gives greater compression at the bottom, and thus increases the capacity in tons, and because it can have a permanent roof there is less liability of spoiled silage due to access of air. These are the arguments in favour of the tall silo, and the fact that most of the silos in the United States are tall, or "tower," silos suggests that they have been proved in practice. It is also notable that farmers in this country who made silage on a large scale before the war used tower silos, of which there are more than two hundred now in existence, ranging in height up to 70 ft. Whatever the height, the diameter is usually about 15 ft.; this is because some of the silage is removed every day during the period it is in use, and a container of the smallest diameter consistent with working space exposes the least amount of silage to the air.

Where properly-built silos have been used and the ensilage carefully carried out the process has been very successful. Many hundreds of silos are now being built, including a fair proportion of tower silos from 30 ft. to 70 ft. in height. The low silo is a neat structure, and many of them are now being camouflaged: they are usually built near the farm buildings, so as to minimise carting in the winter, and are not conspicuous. The tower silo, however, is a feature of the countryside. It, too, is usually built near the cow-houses, and may rise to a height of 70 ft.; indeed, there are already probably two hundred or so silos 60 ft. or more in height in existence in this country.

Essentially, a tower silo is a cylinder with emptying doors about 3 ft. wide, one above another at about 3 ft. intervals throughout its height, with a ladder to enable a man to get to the top, and a pipe through which the material is blown from a cutter to the top of the cylinder. The roof may be flat, or pitched, or domed, or any other shape that will keep out the weather. The cylinder will usually be built of concrete, so its colour will be grey unless the wall is treated at extra cost. The relation between height and diameter is fixed if the least area of wall is to be used to contain a given quantity of silage and the cheapest structure is to result.

If these silos are to appear about the countryside in large numbers they will have a considerable effect on the landscape, and are, therefore, of considerable interest to the architectural profession. Fig. 1 shows a tower silo recently erected in Kent by Mr. J. M. Pennington, of

FIG. 2.—A PORTABLE FARM SILO 12 FT. HIGH.

Sturry, near Canterbury, who has for many years specialised in the erection of farm buildings. The low silo shown in Fig. 2 is by the Marley Tile Co., Ltd. The three silos seen in these illustrations are made with precast concrete slabs 3 ft. high by 1 ft. 6 in. wide by 2 in. thick, with airtight joints, and erected so as to break joint. The lateral pressure of the contained silage is resisted by bands of steel or strand-wire, which are tightened up by means of shackles. It will be noted that these tension bands are closer together at the bottom of the silos, where the pressure is greatest. This is the type of construction which is now common practice in the United States, and is becoming increasingly popular in this country. The low silos are erected on concrete foundation blocks, and are portable; *in situ* foundations are used for tower silos.

The fermentation of the silage forms acids, notably lactic acid, which is very destructive to concrete. For many years there were repeated failures of concrete tanks used for the storage of milk and liquid-milk products due to the presence of lactic acid, but the problem has now been solved by specialists in the protection of concrete against acids. There are on the market several reliable materials for protecting concrete against the destructive effect of lactic acid, and it is important that one of these treatments should be used on the inside of the wall if the expense of frequent renderings or early destruction are to be avoided.

WAR-TIME BUILDING

A.A.S.T.A. DISCUSSION WITH THE MINISTRY OF WORKS AND BUILDINGS.

On Friday, December 19, Sir Geoffrey Wiskard, Secretary to the Ministry of Works and Buildings, Mr. Hugh Beaver, Director-General of Works and Buildings, and Mr. W. Leitch, Deputy Secretary, received Mr. H. L. Barton, Vice-President, Mr. J. Brewster, Chairman of the A.A.S.T.A. House Branch in the Ministry of Works and Buildings, Mr. A. G. Ling, Chairman of the Organisation Committee, and Mr. P. Rosenfeld, Chairman of the A.A.S.T.A. Technical Committee, for a discussion on "War-time Building." The A.A.S.T.A. members presented the following memorandum:—

"As the Trade Union for Building Technicians, our purpose is to ensure the best and most economical use of the resources of the building industry, so that the building programme is carried out with the maximum speed and efficiency. We wish to raise the standard of the technicians' work and remove any obstacles which stand in the way of increased output. We do not wish to delve into all the cases and rumours of waste and inefficiency after the damage is done; we want rather to prevent it from occurring.

"We feel that this can best be done with the active participation of the technicians in joint consultations, linked with consultations with operatives. Through practical experience they are often in the best position to suggest economies and improvements. At present they are conscious of many inefficiencies and would like to see them remedied, but the channels through which this might be done are devious and often blocked. This results in a feeling of frustration which acts as a deterrent to increased output.

"We suggest that the Ministry of Works and Buildings should ask Heads of Departments, sections or firms to hold consultations with their staffs, similar to those held in the L.C.C., at which every member would be encouraged to put forward his proposals for eliminating unnecessary work and preventing waste and delays. Where the work is well-organised the knowledge of the methods adopted would be useful to those Departments and firms tackling similar problems with less success.

"We also suggest that such consultations should be implemented by departmental or other committees (according to the nature of the organisation), on which the technical staffs would be represented by nominees of their respective Associations. Such committees would be responsible for examining all suggestions put forward and seeing that those of value are put into operation in the shortest possible time. Further, in order to maintain the drive for increased output, we suggest that regular office meetings should be held so that members of the technical staff can undertake their work enthusiastically and intelligently and can raise any problems which may occur from time to time.

"We further suggest that there should be similar joint site consultations with operatives who have many useful suggestions to make and points of view to express, particularly on the operation of the Essential Work Order, and that there should be opportunities for technicians on the site to participate, with liaison between these meetings and office meetings.

"Proposals put forward by particular Departments or firms will probably be of value to those carrying out similar work elsewhere, and we suggest that these should be sent by the committee concerned to the appropriate Ministry official so that they can be operated throughout the industry.

"As we have stated in our Report, 'War-time Building,' improvements can be effected by:—

"1. Co-ordinated direction of all works and allocation of resources by the Ministry of Works and Buildings.

"2. Delegating planning and designing responsibility to technicians. Placing less emphasis on 'working to instructions,' which does not allow the technician to use his intelligence and results in alterations and delays. Often whole Departments or firms are subjected to this method; in either case the position can be greatly improved by not passing instructions through individuals not immediately concerned with them.

"3. Placing technicians in positions for which they are properly suited.

"4. Providing facilities for direct communication between all concerned with a building job, and giving adequate supervision to all contracts.

"5. Co-ordinating planning requirements and structural research and providing technicians with the information necessary to carry out their work properly. Also using standard designs and methods to effect large economies.

"6. Giving technicians and operatives good working conditions as an essential basis for efficient work.

"We are particularly concerned to secure your approval to the suggested consultations, and we trust that you will give the above points your consideration. It is essential that all branches of the building industry should be covered—Ministerial Departments, consultants and contractors' offices and manufacturing firms, as well as those engaged in war-time building research. Operatives, too, would be encouraged to participate in the drive for increased output by these steps, for we know that the delays and alterations which worry technicians are equally baffling to them.

"In this drive we offer the whole-hearted co-operation of our members, and we are confident that the response from technicians generally will be enthusiastic and helpful."

There was a full discussion on the need for office and site consultations, and negotiations are continuing on the measures necessary to implement this proposal. The A.A.S.T.A. will shortly submit to the Ministry further evidence on the other proposals outlined in the Memorandum.

R.S.I. Examinations.

The Royal Sanitary Institute and the R.S.I and S.I.E. Joint Board announce from 90, Buckingham Palace-road, London, S.W.1, the dates and centres of examinations in the British Isles, 1942-43. Entry forms should be sent as early as possible.

LIABILITY FOR DEFECTIVE AIR-RAID SHELTERS

By W. T. CRESWELL, K.C., Hon.A.R.I.B.A., A.S.I., etc.

FROM time to time there have appeared in these columns articles concerning air-raid shelters.

It will be recalled that the Civil Defence Act, 1939, made it possible for local authorities and others to provide air-raid protection on a large scale, by means of shelters. These were built in or over premises, underground or on the surface of the ground. Recently the tendency has been to build them mainly on the surface of the ground.

Early in the war, due to haste, and inexperience and the lack of adequate and proper materials, especially of cement, many shelters developed dampness. Especially did this come about where shelters were entirely, or partly, underground. The development of dampness in any building is the bugbear of the builder. Unless special precautions are taken during construction, dampness is likely to travel up through the walls from any but very dry ground; or it may filter through from the face or descend through from the top of the walls. Any excavation made in the soil for an underground shelter invariably acts as a sump, and collects the water from the surrounding ground. Therefore, where this happens the water should be led away from the shelter, the first and simplest means being that of subsoil drainage. It is well nigh impossible to construct a shelter which will remain damp-proof in waterlogged ground unless at great expense. Indeed, no cautious builder would undertake the risk of attempting it. Probably the only way to ensure freedom from damp is to lay asphalt under, and all round the sides of, the structure, so isolating it from the soil as in a tank. Mere brickwork in cement mortar will not suffice to keep the rising water out of the walls.

Dampness in walls demands immediate attention, and whatever remedy is applied should be applied to the outside surface of the walls.

It is waste of time and material to seek to remedy it by any treatment from the inside of the walls only; that method is only in the nature of a palliative.

It is the duty of every contractor to ascertain for himself that it is practicable to execute the work contemplated on the site proposed for the shelter.

The seller of a house gives the buyer an implied warranty that the house is built in an efficient and workmanlike manner, and of proper materials, free from damp and fit for habitation. Where, however, a builder has contracted to build any building, generally speaking, if he completes the whole work according to the plans and specification and (if these also are part of the contract) the bills of quantities, there is no such implied warranty of fitness from his side. If he has duly and properly complied with the contract as to labour and material, then he is not under any liability for defects. On the other hand, a builder who has contracted to provide any materials which he eventually finds it to be impossible to obtain is not protected in law from the consequences of not fulfilling his contract specifically; and he is under a liability to pay damages accruing from his failure to do so, unless the State interferes so as to prevent performance of his contract to such an extent as entirely to alter the part or terms of it involved—for example, the withholding by the State of cement where a contractor has undertaken to use it in any work is not his fault.

So much depends on the nature of the contract work and the purpose for which it is intended and designed. If, for instance, the building is an air-raid shelter designed by someone other than the builder so that it is believed to be able to withstand a direct hit, the builder who contracted to build it could not be held liable if it failed to "take it," so long as he could show he had faithfully followed the design with the specified materials and employed proper labour, etc. The same would apply, of course, in the case of a shelter designed to withstand blast only. But where it could be shown that the contract with the builder was for "an air-raid shelter," it might well carry the implication that there was not only a contract to work to some design and specification, but that it would be reasonably fit for its intended purpose, and therefore reasonably free from damp. This would especially apply where the builder had himself prepared the design and specification for the employer's approval.

An important County Court decision was given last month in the case of Lowe *v.* Carter at the Ilford County Court. The plaintiff sued the defendant (a building contractor) for breach of contract in respect to the building of an air-raid shelter, alleging that it was so built that it was impossible to occupy it for long periods owing to the water entering it. From the evidence it appeared that the defendant had contracted direct with the plaintiff and had provided the design and specification, well knowing that the ground was waterlogged during the winter months, and that the water-level was only a few inches below ground level. He had, indeed, told the plaintiff that it was not advisable to sink a shelter below 2 ft. 6 in. in that area, but plaintiff wanted it sunk 4 ft. 6 in. There was a shortage of cement, but the defendant said he had used 15 cwt. of cement in the construction and had endeavoured to remedy any defects by rendering the walls inside, up to ground-level, adding waterproofing cement to the rendering.

The judge held that, since people might have to go into air-raid shelters suddenly at night, and to spend in them long hours, there was an implied warranty that the shelter was fit for it, and that it would be reasonably fit in respect of water. There was an implied warranty that the materials should be reasonably fit for the purpose. He came to the conclusion that the mortar was not of such quality as should be used in the erection of a wall or in erecting outside walls of a building which is to be sunk in waterlogged ground. The difficulty of obtaining cement was no reason for the work being done with the mortar with which it was done. The answer would have been not to have proceeded with the work, and in the event of a claim to have said, "I cannot help it; restrictive powers prevent me from obtaining the materials to do the work I am asked to do. It would be a complete defence for breach of contract." The judge came to the conclusion that there had been substantial quantities of water in the shelter, and that the materials used, the mortar particularly, were not reasonably fit for the purpose for which they were provided. He gave judgment for the plaintiff for £25.

Yorkshire Federation Presidency.

Mr. W. M. Beeden, of Thrybergh, has been elected President of the Yorkshire Federation of Master Builders.

LONDON MASTER BUILDERS' ASSOCIATION

AREA COMMITTEES.

WITH reference to the announcement in our issue of December 5, further progress has been made in the formation of Area Committees of the L.M.B.A., and the following have been set up in the Central London Area:—

CENTRAL AREA No. 1.—Chairman, Mr. G. Russell (John Garlick (1910), Ltd.); vice-chairman, Mr. F. Webber (William Willett, Ltd.); hon. secretary and treasurer, Mr. C. E. B. Head (F. D. and H. Head).

Area: Chelsea, Fulham, Hammersmith, Kensington, Westminster.

CENTRAL AREA No. 2.—Chairman, Mr. W. E. G. Hull (Y. J. Lovell and Son, Ltd.); senior vice-chairman, Mr. H. Stanley Brown (H. Brown and Son); junior vice-chairman, Mr. G. Stothard (F. Troy and Co., Ltd.); hon. secretary, Mr. Walter Lawrence (Davis Contractors, Ltd.); hon. treasurer, Mr. C. S. Wade (Rodec, Ltd.).

Area: Hampstead, Islington, Paddington, St. Marylebone, St. Pancras, Stoke Newington.

CENTRAL AREA No. 3.—Chairman, Mr. Wilfred E. Mullen (Mullen and Lumsden, Ltd.); vice-chairmen, Mr. P. Silk (W. Silk and Son, Ltd.) and Mr. R. L. Roberts (L. H. and R. Roberts); hon. secretary, Mr. H. J. Falkus (Falkus Bros., Ltd.); hon. treasurer, Mr. D. C. C. Roberts (C. P. Roberts and Co., Ltd).

Area: Bethnal Green, City of London, Finsbury, Hackney, Holborn, Poplar, Shoreditch, Stepney.

CENTRAL AREA No. 4.—Chairman, Mr. J. T. L. Wigmore (Thomas and Edge, Ltd.); vice-chairman, Mr. William F. Mills (William Mills and Sons, Ltd.); hon. secretary, Mr. C. A. Matthews (Thomas and Edge, Ltd.); hon. treasurer, Mr. F. Proctor (Edward Proctor and Son).

Area: Bermondsey, Deptford, Greenwich, Lewisham, Woolwich.

CENTRAL AREA No. 5.—Chairman, Mr. Walter J. Hill (George Newton and Hill); vice-chairman, Mr. M. G. Bridge (Bridge Walker, Ltd.); hon. secretary and treasurer, Mr. S. Lidstone, Jnr. (J. Lidstone and Son).

Area: Battersea, Camberwell, Lambeth, Southwark, Wandsworth.

By the formation of these Committees with those previously reported, making eleven in all, the whole of the London Region of the National Federation of Building Trades Employers has been covered.

Greater London Master Builders.

The Federation of Greater London Master Builders will hold its first annual ordinary meeting and fourth quarterly general meeting at the Connaught Rooms, Great Queen-street, on Tuesday, January 27, 1942, at 2.45 p.m. The meeting will be preceded by a luncheon at 12.45 p.m., at which the guest of honour will be Mr. Hugh Beaver, Director-General, Ministry of Works and Buildings, and many other distinguished guests are expected to be present.

20,000 Tons of Cement Bags Wanted.

Millions of the thick paper bags in which cement is delivered are to be salvaged in all parts of the country, states the Waste Paper Recovery Association, Ltd. Cement manufacturers are appealing to builders' merchants and builders to save every one of the bags they receive, and the industry hopes thus to save 20,000 tons of waste.

IN PARLIAMENT

Sir Charles Barry's Drawings.

Replying to MR. HUTCHINSON and MR. THORNE, MR. HICKS said that Mr. Charles Marshall, of Cheam, Surrey, generously offered last May to present to the Ministry a collection of some 52 drawings made by Sir Charles Barry of the building of the Houses of Parliament. Certain of these drawings would undoubtedly be useful, and they had been retained by the Ministry. The remainder had, with Mr. Marshall's agreement, been presented to the R.I.B.A., where a large collection of drawings by Sir Charles Barry was already preserved and where they would be more readily available to the architectural profession. The drawings retained in the Ministry, though containing valuable information, were fragmentary and not considered suitable for exhibition.

Brick Industry.

MR. DOLAND asked the Parliamentary Secretary to the Ministry of Works and Buildings if the Report of the Committee on the Brick Industry had been received.

MR. HICKS said the first interim report had been received and was now under consideration.

Building Material.

SIR JOHN MELLOR asked the Parliamentary Secretary to the Ministry of Works and Buildings whether, in cases where the owner of any piece of building construction whose total cost did not exceed £100, used for that work material which was in his own possession, the £100 was deemed to include such material.

MR. HICKS.—Yes, Sir.

Scrap Iron Resources.

CAPTAIN ALAN GRAHAM asked the Parliamentary Secretary to the Ministry of Supply why the large source of scrap-iron available at the derelict cement works at Ellesmere Port, formerly belonging to Allied Cement Manufacturers, remained untapped, in spite of this having been brought to the notice of his department a year ago.

MR. H. MACMILLAN said that 127 tons of material had already been disposed of from these works and a further 500 tons were in course of collection.

Hampton's Site.

CAPTAIN GAMMANS asked the Secretary of the Treasury if, in view of the shortage of labour and materials, he was satisfied that the erection of a special building on Hampton's site in Trafalgar Square for the War Savings Campaign was necessary; and what steps were taken to try and secure suitable existing accommodation.

CAPTAIN CROOKSHANK said that the answer to the first part of the question was in the affirmative. War Savings efforts in Central London tended to radiate from Trafalgar Square, and the simple structure which was being erected would be of particular value as a propaganda and selling centre for the War Savings Campaign. No similar accommodation was available in the Square. This most valuable publicity site and the structure which was being erected on it had been given free of all cost to the National Savings Committee by Messrs. Hamptons for the duration of the War.

Turn Out Those Wallpaper Books!

Many builders, decorators and builders' merchants have out-of-date wallpaper books in their possession; and in view of the urgent national need, they are urged by the Salvage and Recovery Board, Ministry of Supply, to give them up as salvage immediately.

EMERGENCY INQUIRY BUREAU

Accident: Question of Liability.

SIR,—*I shall be glad of enlightenment on the following position which has arisen at a factory. A firm working on a "contract" job is usually issued with a "variation order" to cover any such variation of the original contract, such as trial holes, work on a T. and M. basis, not having been contemplated when the specification and bill of quantities were got out. Such work is usually signed for by the R.E. on site and the contractor's agent, and covered as regards insurance and compensation, etc., by the contract terms.*

Now supposing, as is the case on factory works, labour is lent to the factory, quite apart from the original contract, say, to do some urgent odd-job elsewhere in the factory, and for which the factory issue for such men time-cards, and require them to "clock in" and "out"; in effect for a time they are virtually the factory staff. Who is liable for damages should an accident occur between the times of "clocking in" and "out"—the contractor or the employer (the factory)?

ENGINEER.

A correspondent writes: This inquiry is answered quite shortly. The rule is that the person (or persons) under whose control the workmen are at the incidence of the accident is or are liable. This applies where workmen are lent by one person to another. The latter is liable. It matters not who pays the workmen, or whether the person who accepts the loan of the workmen pays anything for that loan or not; for the person who has lent them has handed over the control of them. And, as stated above, the person under whose control the workmen are at the time of the accident is liable. Since, as stated in this case, the labour is lent to the factory, then the factory is liable, the men being under the factory's control.

COMPARISON OF PRICES

The following table shows the difference in price of a few representative materials to-day as compared with a year ago:—

	January, 1941. £ s. d.	January, 1942. £ s. d.
Flettons	2 11 9	2 11 9
White Midhurst	3 12 6	5 10 0
Portland Cement	2 9 6	2 16 6
Grey Stone Lime	2 12 6	2 17 6
Bath Stone	2 11½	3 3½
Portland Stone	4 6	4 7
Building Timber—		
3 × 4 }	43 10 0	43 10 0
3 × 9 }		to
3 × 11 }	53 0 0	53 0 0
4 × 11 }		
Slates—		
24 × 12	34 17 6	45 5 0
20 × 10	24 0 0	30 5 0
Tiles—		
Machine-made	5 6 6	5 6 6
R.S. Joists	22 10 0	23 10 0
Raw Linseed Oil	5 4	5 5
Turpentine	5 3	8 9
Ground English White Lead (cwt.)	3 1 0	3 8 3
White Lead Paint (cwt.)	4 3 6	4 11 0
Red Lead (cwt.)	2 12 0	2 14 0
Sheet Lead	34 10 0	35 10 0
Glass—		
18 oz. O.G.	2½	2½
24 oz.	3½	3½
26 oz.	3¾	3¾

HISTORY OF ENGLISH LIFE

Geffrye Museum Exhibition.

THIS is an unusually interesting exhibition and covers the periods of the Prehistoric, the Roman Occupation, Mediæval England, the Tudors, the Stuarts, and the 18th, 19th and 20th centuries, with a special panel on Industrial Revolution. The periods are illustrated by coloured murals, charts and diagrams, with numerous models of articles of every description in use at the time. The exhibition commences with a drawing of a prehistoric hut, below which is another sheet showing the simple furnishing. Clothed figure drawings give a realistic touch. Similar procedure is employed through the onward centuries up to To-day and To-morrow, all illustrated by a model house of each, furnished costumes, and every conceivable article in use. One might add the industries of shipbuilding and vehicle-making and such things as farm implements and operating theatres, all shown by models. A word must be said for the large coloured drawing entitled "To-day and To-morrow." This shows the modern type of architecture, with gardens and site layout. One is struck by the accuracy of the perspective. The exhibits have been loaned by the Sheffield Royal College of Art and Crafts, and the exhibits are the work of children aged from 12 to 14 years—a truly remarkable achievement. The exhibition remains open to January 31 and will be followed by a lecture on February 7, by Miss Elizabeth Denby, entitled "Living in Towns." Visitors will have an opportunity at the same time to renew their acquaintance with the many exhibits of period pieces of furniture, etc., on view in the galleries, formerly almshouses belonging to the Ironmongers' Company—a good example of 18th-century architecture. The museum is situated in Kingsland-road, Shoreditch.

R.I.B.A.

Membership.

The following members have been elected:—

AS FELLOWS.

Captain C. E. Culpin (Stagsden, Bedford).
C. H. Fitch (London).
H. J. Higgs (London).

AS ASSOCIATES.

G. C. Bodgener (Polytechnic), (Wallington, Surrey).
Miss B. M. R. Palmer (Polytechnic, London) (Wokingham, Berks.).
J. R. Chavasse (B'ham Sch. of Arch.), (Wolverhampton).
B. Sarron (Polytechnic), (London).
R. E. J. Chew (Northern Poly.), (London).
J. R. Stammers, B.A. (Arch.), Hons. (Univ. of London), (Purley, Surrey).
Miss B. Chubb (Leeds Sch. of Arch.), (Ilkley, Yorks.).
J. Steel (Renfrew, Scotland).
L. W. Cook (Polytechnic), (Wallington, Surrey).
L. J. Terry (Northern Poly.), (London).
J. G. Cullen (Bathgate, West Lothian).
J. S. A. Young, B.A. (Hons. Arch.), (Victoria Univ., M'ter), (Manchester).
Lieut. F. Fielden (Victoria Univ., M'ter), (Greenfield, near Oldham).

OVERSEAS.

T. S. Grossert (Edinburgh Coll. of Art), (Pencaitland, East Lothian).
H. G. Alsop (Melbourne, Victoria, Australia).
2nd Lieut. F. Murray, R.E. (Edinburgh Coll. of Art), (Elgin, Morayshire).
A. E. Bridge (Melbourne, Victoria, Australia).
H. Padget, Dip. Arch. (Leeds), (Leeds Sch. of Arch.), (Wakefield).
J. B. Suttor, Dip. Arch. (Sydney, N.S.W., Australia).
R. A. Widdicombe (Univ. College, Auckland, N.Z.), (Wellington, N.Z.).

AS LICENTIATES.

H. F. Bailey (London).
P. G. Lees (Senny Bridge)
F. H. Buen (Barking).
D. MacAlister (Hong Kong).
V. Coppock (London).
K. P. J. Courtney-Dyer (Salisbury, Wilts.).
P. Paget (London).
L. Pierpoint P.A.S.I. (Wigan).
D. C. Denton-Smith (Cambridge).
M. Solmenow (Twickenham, Middlesex).
F. W. Handover, P.A.S.I. (London).
H. F. Trobridge (London).
H. G. Hayter (Southampton).
D. Warder, P.A.S.I. (Bracknell).
H. A. Hesketh (Liverpool).
W. Wiltshire, P.S.I. (London).
J. E. Kelly (London).

OFFICIAL NOTIFICATIONS

Timber Quota Holders.

The Ministry of Supply is conducting a review of the rates of remuneration to timber quota holders, but this review will not be completed before the end of the current quota period (December 31, 1941). It has accordingly been decided that the validity of the existing quota authorisation shall be extended to January 31, 1942, the terms and conditions remaining unchanged. It is not at present proposed to issue new quota authorisations, and those now in the possession of quota holders will therefore be valid during the period of the extension.

Paint Oil Control

The Minister of Supply has made an Order, operative from December 26, relating to the acquisition, disposal, treatment, use and consumption of paint, lacquer or varnish containing tung oil, oiticica oil, stillingia oil, drying oil made from castor oil, or thickened or mixed oil of which any one or more of these oils is an ingredient. The Order prohibits the disposal of such paint, etc., by the manufacturer thereof except under licence, or unless the person acquiring the paint, etc., is party to a Government contract or sub-contract and acquires the paint, etc., for use directly in the fulfilment of that contract or sub-contract. Similar restrictions apply to the treatment, use or consumption of such paint, lacquer or varnish by the manufacturer.

Applications for licences should be made by letter to the Raw Materials Department, Ministry of Supply, Warwick. No licences for civil use will for the time being be issued in respect of paint, etc., containing these oils.

Copies of the Order, which is entitled "The Control of Paint, Lacquer and Varnish (No. 1) Order, 1941," may be obtained from H.M. Stationery Office (price 1d.), York House, Kingsway, W.C.2, or through any bookseller.

War Damage Act, 1941 (Part II). Business Scheme: New Quarterly Period.

The Board of Trade has issued the following statement :—

A new quarterly period of insurance of business equipment under Part II of the War Damage Act began on January 1, 1942, and runs until March 31, 1942. The premium for this period is 7s. 6d. per £100. Insurance is compulsory where the value of the business equipment held exceeds £1,000 or, in the case of a farming business, where the Schedule "A" assessment (or in the absence of a Schedule "A" assessment, the annual rent) or, in Northern Ireland, the net annual value exceeds £50. Below these limits insurance is voluntary.

All those who are compulsorily insurable, or, if voluntarily insurable, wish to be covered against war damage to their equipment and who have not already taken out a policy for the six months from October 1, 1941, to March 31, 1942, should apply to their fire insurance company or Lloyd's for insurance for the period of three months from January 1.

Persons who are compulsorily insurable but fail to carry out their obligations are liable on summary conviction to a fine not exceeding £100 and to a further fine not exceeding £50 for every day on which the contravention continues.

Control of Timber (No. 21) Order.

The Minister of Supply has made the Control of Timber (No. 21) Order, which came into force on January 5, 1942. Its primary purpose is to provide uniform prices for National Stock Imported Timber, ex wharfingers' yard, in place of prices varying with the cost of transport from the port to those yards. The general level of prices remains unchanged, but certain adjustments have been made to remove anomalies and facilitate the substitution of one timber for another. The provision of these uniform prices is effected by adding to the Fixed Basis Price an "equalisation charge," as follows :—

(1) On telegraph poles—7½ per cent. of the fixed basis price;

(2) On softwood priced per cu. ft.—5d. per cu. ft.;

(3) On all other softwood—£3 5s. per standard; and

(4) On hardwood—3d. per cu. ft.

The following prices are continued in force :—

(1) For private opening stock—prices as printed in the First Schedule to the Control of Timber (No. 13) Order, which, with slight modifications in the Instructions, is retained in use by reference to it in the (No. 21) Order;

(2) For plywood—prices as printed in the Schedule to the Control of Timber (No. 16) Order, 1940; and

(3) For home-grown timber—prices as printed in the Schedule to the Control of Timber (No. 17) Order, 1940, as amended by the Nos. 18 and 19 Orders.

Provision is made in the Control of Timber (No. 21) Order for the continuance in force of licences granted under previous Orders, provided such licences are in force. Copies of the Order (price 1s. 6d.) and of Directions Nos. 1-6 (price 1d.) may be obtained from any branch of his Majesty's Stationery Office or from any bookseller, but cannot be obtained from the Timber Control.

Packing Cases and Crates.

A memorandum has been issued by the Timber Control Department of the Ministry of Supply of points to be noted by firms manufacturing or repairing made-up boxes, packing-cases and crates who apply for timber supplies on Form T.C. 3/8/1P and T.C. 3/8/2P. Altered procedure for those firms catering to Government requirements, export trade, home trade and general is now in force, and firms interested should obtain a copy of the memorandum from the M.S., Timber Control Department, Adelphi, London, W.C.2.

CONTRACTOR'S ALLEGED FRAUD CHARGES

PROSECUTED by the Director of Public Prosecutions, Patrick Joseph Mulcrone, of Ilmington-road, Kenton, was committed for trial at the Marlborough-street Police Court on charges of being concerned in the management of Ealand and Pierce Developments, Ltd., while an undischarged bankrupt, and attempting to obtain the sums of £14 7s. 5d., £12 19s. 4d., £2 1s. 2d. and £6 2s. 5d. from the Hampstead Borough Council by false pretences, with intent to defraud.

Mr. Lawson Walton, prosecuting, alleged that the defendant was adjudicated bankrupt in February, 1940, with a deficiency of £6,261. In April last, he said, defendant obtained a prime-cost contract from the Hampstead Borough Council for first-aid work to war-damaged property and sent in time-sheets and summaries to the Council for a number of workmen who were also shown on similar returns to the Hendon Borough Council as having been employed by him at Hendon over the same period. When he returned the accounts to the Council for examination it was found, said counsel, that some of them were not the originals and that various alterations had been made.

An 18-page statement alleged to have been made by the defendant to Det.-Inspector Owen, of New Scotland-yard, when interviewed about the accounts submitted by him to the Hampstead and Hendon Borough Councils, was produced in evidence, but was not read. This statement, it was said, the defendant had declined to sign. The Inspector denied in cross-examination that he refused to sign it because he said it was incorrect.

WAR DAMAGE ACT, 1941

SUBMISSION OF FORMS W.D.P.1.

THE following circular (No. 2548) has been issued by the Ministry of Health to Housing Authorities in England regarding the submission of Forms W.D.P.1 (Parts II and III) :—

It will be recalled that in Circular 2335 (paragraph 12) it was suggested that local authorities who were finding it difficult to make prompt returns on Form W.D.P.1 should supply the Commission with the notes they had prepared for their own use. The Commission's experience has shown that a number of local authorities are finding it simpler and speedier to adopt this alternative and to submit the necessary details separately for each individual property, in the form in which they are recording them for their own purposes. The Commission are still concerned at the delay in the submission of the information required on Forms W.D.P.1 (Parts II and III), which is essential for the effective checking of claims. The Minister thinks it necessary, therefore, to remind local authorities that the Commission will be prepared to accept returns of war damage in the alternative form referred to above, and to ask all local authorities who are finding it difficult to keep abreast of this work to consider immediately whether they could not submit returns more quickly in this way.

It is not intended to withdraw Form W.D.P.1 or to issue any alternative Form, but merely to encourage local authorities to furnish the essential information to the Commission in whatever shape they find most convenient. The form suggested may be helpful as a specimen of the returns which some local authorities are making. The Summary Return (Part I) should continue to be sent to the Ministry of Health, Whitehall, and to the Senior Regional Officer of the Ministry.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies Registry.

ASBESTOS CEMENT ROOFINGS (NORTHERN), LTD. (371,053). Regd. December 4. 86-88, Queen Victoria-street, E.C.4. Nom. cap., £1,000. Dirs. : R. Gray, 3-4, Lime-street, E.C.; E. J. Lovelace and T. E. F. Bigmore.

ASBESTOS CEMENT ROOFINGS (MIDLAND), LTD. (371,052). Regd. December 4. 86-88, Queen Victoria-street, E.C.4. Nom. cap., £1,000. Dirs. : H. Gray, 3-4, Lime-street, E.C.3; E. J. Lovelace, and T. E. F. Bigmore.

A. THOMPSON (SALFORD), LTD. (371,123). Regd. December 8. 10, Bexley-square, Salford 3, Lancs. Builders, contractors, bar fitters, etc. Nom. cap., £600. Dirs. : Mrs. D. R. Ball and R. Ball, 56, Seedley Park-road, Seedley, Salford, 6; Mrs. B. R. Nye and R. C. Nye; and Mrs. M. R. Wroe and R. Wroe.

ISCA BUILDING CONTRACTORS, LTD. (371,155). Regd. December 9. Nom. cap., £10,000. Dirs. : E. A. England, 34, Heavitree-road, Exeter; A. E. Gregory, W. J. Tucker, F. Wakeham, A. G. England, and H. C. Gould.

PAIGNTON PUBLIC WORKS AND BUILDING CONTRACTORS, LTD. (371,158). Regd. December 9. Nom. cap. : : £5,000. Permt. dirs. : F. F. Barnes; F. A. Drew, The Maples, Clennon-gardens, Paignton; P. Drew, C. W. Drew, and G. W. Willcocks, Burleigh, Cecil-road, Paignton.

FLOORING CONTRACTS (BIRMINGHAM), LTD. (371,194). Regd. December 11. 62, Oxford-street, W.1. Nom. cap., £5,000. Dirs. : J. A. Rennie, C. Nicol; and F. N. Gee, 3, Fitzmaurice-place, W.1.

VICTOR CEMENT CO., LTD. (371,240). Regd. December 12. Nom. cap., £1,000. Subs. : W. Alexander, 14, Waterloo-place, London; and J. V. Russell, 25, Watt-road, Hillington, Glasgow.

POYNTON WASHED SAND AND GRAVEL CO., LTD. (371,257). Regd. December 13. Breck Quarries, Adlington. Nom. cap., £1,000. Dir. : C. Ogle, "Porlock," Chester-road, Woodford, Cheshire.

TRENT SUPPLY CO., LTD. (371,264). Regd. December 13. 102, Friar-gate, Derby. Quarry and mine owners and builders' merchants, etc. Nom. cap., £1,000. Dirs. : T. A. Armson, Fir Cottage, Walton-on-Trent, Burton-on-Trent; and W. J. Smith.

VICTORIA SAWMILLS, LTD. (371,216). Regd. December 11. Victoria Works, Hayes Bridge, Middlesex. Nom. cap., £5,000. Dirs. : J. F. Plincke, Great South Hawke, Woldingham, Surrey; M. van Westerborg, and O. Charmant.

H. A. FRENCH (BUILDERS), LTD. (371,267). Regd. December 15. 106, Greenfield-gardens, N.W.2. Nom. cap., £100. Dirs. : C. V. Pickering, 14, Marlow-court, Willesden-lane, N.W.6; and H. A. French.

JOHN C. SARGEANT, LTD. (371,293). Regd. December 16. St. Andrew's Works, Bracknell. Builders, contractors, etc. Nom. cap., £5,000. Dirs. : J. C. Sargeant, "Grenville," Reading-road, Bracknell, Berks; K. M. Sargeant, and E. M. Sargeant.

ABBEY ESTATES AND CONTRACTORS' PLANT, LTD. (371,282). Regd. December 16. Trent Navigation Buildings, Wilford-street, Nottingham. Nom. cap., £1,500. Dirs. : F. O. Wright, Kenwood, Adams Hill, Nottingham; H. C. Wright and L. Litchfield.

NORTH WESTERN CONSTRUCTION CO., LTD. (371,330). Regd. December 17. 14, Mereland-road, Blackpool. Builders, contractors, etc. Nom. cap., £1,000. Dirs. : E. G. O'Hara, 14, Mereland-road, Blackpool; and A. E. O'Hara.

NORTH KENT CONSTRUCTION CO., LTD. (371,297). Regd. December 16. Builders, etc. Nom. cap., £500. Dirs. : to be appointed by subs., D. B. Forsey, 15, Malvern-road, Orpington, Kent; and T. R. Grayson, 7, Malvern-road, Orpington, Kent.

NORTH KENT HAULAGE CO., LTD. (371,298). Regd. December 16. Builders, etc. Nom. cap., £500. Dirs. : to be appointed by subs., D. B. Forsey and T. R. Grayson.

A. MATHIESEN & CO., LTD. (371,313). Regd. December 17. 16, Hereford-road, Southsea, Hants. Property owners, builders, etc. Nom. cap., £200. Permanent dirs. : A. Mathiesen, 16, Bassett-gardens, Osterley Park, Middlesex; and Nora H. Mathiesen.

EXMOUTH BUILDERS, LTD. (371,348). Regd. December 18. 8, Rolle-street, Exmouth. Nom. cap., £5,000. Dirs. : G. J. Abell (8, Rolle-street), A. W. Cooper, C. H. Cooper, H. C. Greenaway, H. Greenaway, and T. J. Hooper, all of Exmouth.

L. W. TIDDER, LTD. (371,356). Regd. December 18. Builders, etc. Nom. cap., £500 Dir. : L. W. Tidder, 1, Grosvenor-drive, Hornchurch.

BENSON (CONTRACTORS), LTD. (371,375). Regd. December 19. 130, Daventry-road, Coventry. Builders, contractors, etc. Nom. cap., £5,000. Dirs. : K. B. Benfield, 64, Ciceley-road, Coventry; and J. F. Parsons.

Having Secured the Contract— what about the Steel Scaffolding?

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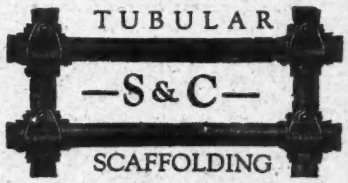

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ANGLO-BELGIAN CONCRETE PRODUCTS, LTD. (371,417). Regd. December 22. 2, Norfolk-street, W.C.2. Nom. cap., £100. Dirs. : to be appointed by the subs., A. E. Dutry, 47, Lowndes-square, S.W.1; and H. L. Costa.

BEMAT, LTD. (371,420). Regd. December 22. 3, Skinners-lane, London. Dealers in and hirers of builders' plant and machinery, etc. Nom. cap., £1,000.

B. & S. BUILDERS, LTD. (371,436). Regd. December 23. Nom. cap., £100. Dirs. : L. M. Slot, 7, Connaught-street, W.2; S. G. Robson and J. Blackburn.

BUILDING CONTRACTORS (PORTSMOUTH), LTD. (371,455). Regd. December 24. Nom. cap., £1,000. Permanent dirs. : A. C. Sothcott, 129, Hewett-road, Portsmouth; and J. W. Smith.

FREDK. WARREN (ROMFORD), LTD. (371,459). Regd. December 24. 9, Eastern-avenue East, Romford, Essex. Heating, ventilating and general engineers, etc. Nom. cap., £500. Dir. : F. Warren, 9, Eastern-avenue East, Romford (permanent managing director).

G. H. CLAPP, LTD. (371,401). Regd. December 20. 15, Hobart-road, Worcester Park, Surrey. Builders, contractors, builders' merchants, etc. Nom. cap., £100. Dirs. : J. A. Condell, 23, Hobart-road, Worcester Park, Surrey; and G. H. Clapp.

EAST RUNTON BALLAST CO., LTD. (371,488). Regd. December 26. The Gap, East Runton, Cromer, Norfolk. Nom. cap., £1,000. Dirs. : A. W. Gray, 137, South Lambeth-road, S.W.; and A. E. Wilkin.

MOAT OF MANCHESTER, LTD. (371,498). Regd. December 26. 58-62, Hunslet-road, Leeds, 10. Builders' and decorators' merchants, etc. Nom. cap., £100. Dirs. : H. Moat, 15, St. Chad's-rise, Headingley, Leeds, 6; and S. Leadbetter.

DIARIES AND CALENDARS

"The Builder" Diary.

This diary (now published from 4, Catherine-street, W.C.2, price 3s. 2d. post free) again proves itself as the most useful technical diary for the architect, structural engineer and constructor. Apart from the section of normal technical data, there is a section on A.R.P. data, concrete thicknesses for resistance to bombs, legislation (C.D. Acts 1937 and 1939), and general war-time regulations affecting construction. A useful directory of professional bodies, technical periodicals and district surveyors also includes a section of maps. In addition, there is full diary space, the whole being neatly bound within limits of 5 in. by 3 in., so being eminently suitable for the pocket.

Other Publications.

We acknowledge with thanks to the Cementation Co., Ltd. (formerly the Francois Cementation Co., Ltd.), a diary which is designed to be of great use to structural and highways engineers. The diary comes from the Bentley Works, Doncaster.

Also received are calendars, etc., from the Standard Range and Foundry Co., Ltd., Watford; Messrs. Ruston and Hornsby, Ltd., Lincoln; Messrs. Taylor Woodrow Construction, Ltd., Southall; and the Limmer and Trinidad Lake Asphalt Co., Ltd., London, to all of whom we express our thanks.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

JANUARY 13.

Bournemouth C.B.—First-aid repairs to properties. B.E. and Architect.

Twickenham T.C. — Day nursery, Powder Mill-la. B.E.

JANUARY 14.

Belfast Civil Defence Authority.—Cleansing station at Grosvenor P.E. school and heating installation for cleansing station. Education Architect, College of Technology.

Dublin.—Alterations to St. Laurence O'Toole's National schools. F. D. Shortall, 10, Leinster-st., Dublin. Dep. £5 5s.

Liverpool T.C.—Refrigerated chamber and plant at Belmont Institution. City E. and S.

Londonderry Civil Defence Authority.—Gas cleansing station and first aid post. City Surveyor's Office, Guildhall-st. Dep. £3 3s.

Plymouth T.C—Block for 40 patients and installation of central heating and hot-water supply at isolation hospital. City Architect, Compton Park House, Tavistock-rd., Plymouth.

Sligo T.C.—Erection of 36 houses. J. O'Brien, 48, Grafton-st., Dublin. Dep. £5 5s.

JANUARY 15.

Grimsby C.B. Nursery classroom, Strand-st. school. J. V. Oldfield, B.E. and S. Dep. £2.

***Lichfield R.D.C.**—Laying of 400 yds. of sewer and construction of sewage pumping station. E. and S. Dep. £1 1s.

JANUARY 19.

Donegal Vocational E.C.—Technical school, Letterkenny. C. V. McLaughlin, A.I.A.A., Letterkenny. Dep. £3 3s.

Leeds T.C.—Maintenance repairs to properties. R. A. H. Livett (A.), Housing Director, Priestley House, Quarry Hill, Leeds. (A charge of 5s. per trade, not returnable, will be made for documents supplied.)

Newton Abbot U.D.C.—Work in connection with surface communal shelters. E. and S.

Southgate T.C. — Strengthening of approx. 17 brick surface shelters. B.E.

JANUARY 20.

Erith T.C.—Conversion of school to whole-time nursery. J. H. Clayton, B.E. and S. Dep. £1 1s.

JANUARY 28.

Wellington (Salop) R.D.C.—Erection and completion of 194 dwelling houses, Donnington. J. Brian Cooper, F.R.I.B.A., Coleridge-chbrs., 177, Corporation-st., Birmingham, 4. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING HEATING, &c.

JANUARY 15.

Southport T.C. — External painting to 286 houses. B. E. Dep. £1 1s.

ROAD, SEWERAGE AND WATER WORKS.

JANUARY 12.

Hartley Wintney R.D.C.—Extensions to sewage works and pumping station. Howard Humphreys and Sons, 7, Eldon-sq., Reading. Dep. £3 3s.

Omagh U.D.C.—For laying of additional trunk main and works incidental thereto. R. Ferguson and S. M'Ilveen, 36-37, Scottish Provident bldgs., Belfast.

JANUARY 14.

Monmouthshire C.C.—Construction of section of bye-pass road. Office of County S., "Stelvio," Bassaleg-rd., Newport, Mon. Dep. £10.

JANUARY 15.

Reading C.B.—Widening and improvement of Church End-la. B.S. Dep. £2 2s.

JANUARY 19.

Newton Abbot U.D.C.—Completion of works connected with erection of supply tanks. C. Lunn, E. and S.

Oakengates U.D.C.—Five brick and reinforced concrete water supply basins. E. and S. Dep. £2 2s.

Tyldesley U.D.C.—Resetting of one bed of seven through "D" retorts. F. Peel, Gas E., Gasworks, Tyldesley.

PUBLIC APPOINTMENTS.

JANUARY 17.

***Middlesbrough C.B.** — Architectural Assistant. B.E., Architect and S.

***Tottenham B.C.**—Temporary Clerical Assistant (Male). R. J. Williams, B.E. Office.

A.R.P. SCHEMES

LONDON.

Barking. — Plans to be submitted to M.H. for providing accommodation for mobile first-aid unit at hospital, at £1,000.—M.H. approval being sought for gas cleansing station at hospital.

Dagenham. — T.C. accepted tender of H. & R. Walker, at £441, for nine brick static water tanks.—T.C. approved erection of steel or brick water dams on 14 sites.

Erith.—Franklin & Co. (Erith), Ltd., Courtleet Works, Erith, Kent, have secured contract, at £796, for 48 entrance covers for public shelters, for T.C. J. H. Clayton, B.E. & S. Full list of tenders will be found on page 51.

PROVINCIAL.

Chorley.—C. Triffitt, 2a, Worthy-st., and J. Gilman, 49, Moor-rd., have secured contract for strengthening shelters, for R.D.C. Plans by W. Cotterill, S.

East Riding.—C.C. propose construction of two shelters at Swinefleet school, Goole. Plans by B. B. Stamford (L.), County Architect, Beverley.

Liverpool.—Watch Committee approved decontamination facilities at Police station, Fazakerley.

FEDERATED EMPLOYERS' INSURANCE ASSOCIATION LTD. ESTABLISHED 1904

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Llandudno.—E.C. propose A.R.P. work at school premises.

Manchester.—W. Thorpe & Son, Ltd., Chester-rd., Cornbrook, have secured contract for first-aid room to works to plans by H. S. Fairhurst & Son (FF.), Architects, Chancery-chbs., 55, Brown-st.

Melton.—U.D.C. to prepare scheme for static water supply. Plans by W. H. Jarvis, S.

Seaton Valley.—U.D.C. to erect A.R.P. report centre. Plans by T. W. Burgess, S.

Sedgley.—U.D.C. proposing structural alterations and adaptations at Clifton cinema for use as reception rest centre. Plans by A. E. Dicks, S.

Staveley.—U.D.C. in conjunction with Councils of Dronfield and Clay Cross and Chesterfield R.D.C. propose public cleansing station at Poolsbrook. Plans by J. B. McGaw, S., Staveley, Derbyshire.

Stoke-on-Trent. — T.C. propose emergency mortuaries, at £500 each.

Wellington (Salop). — U.D.C. propose two static water-storage basins. Plans by W. Walker, E. & S.

Worcestershire.—E.C. propose shelters at Church school, Hartlebury. Plans by H. Rowe & Son, County Architects, 38, Foregate-st., Worcester.

SCOTLAND.

Garrowhill.—Plans prepared for shelters at public school, the architect being William Watt, Albert-st., Motherwell.

NEWS ITEMS

Firewatchers' Helmets.

Comprehensive tests of firewatchers' helmets, carried out by the National A.R.P. Co-ordinating Committee, reveal that a "surprisingly high" standard of protection is afforded. The degree of protection, it is stated, shows that the protection is only slightly inferior to that provided by the military pattern. Criticisms of the harness are made, and also of the fitting to the head. Padding with loose cloth or woollen material would probably make for safety where there appears to be danger of the helmet being forced against the head by a moderate blow.

Repairs to Production Factories.

The Emergency Services Organisation, which acts for the Ministry of Aircraft Production, the Admiralty, and the Ministry of Supply, has, we understand, received delegated powers to grant licences on behalf of the Ministry of Works and Buildings for the repair and reconstruction of war factories. Licences will be issued, and assistance in obtaining building materials will be given by the Chairman of the Local Reconstruction Panel for the district, whose address can be obtained from the local authority or from the Emergency Services Organisation. This organisation will also deal with damage to war factories arising from civil fire, explosion, or accident in the same manner as if caused by enemy action.

Building Apprenticeship, Germany.

The German Ministry of Labour—a correspondent informs us—is directing boys leaving school to become apprentices in the building trade. A report has just been issued in Germany on the first attempt to direct and distribute the supply of young people leaving school according to the requirements of the labour market. So far it has been possible to increase the number of aprentices to the building trade from 32,000 to 37,000. The supply of German bricklayers and carpenters required for carrying out extensive building plans in the newly occupied territories in Poland and Eastern Europe has proved to be totally inadequate. Polish skilled workmen are now being given intensive training, which lasts for only eight weeks, in bricklaying and carpentry. Some 28 training camps have been set up for this purpose.

I

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st JUNE, 1941

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Aberavon	1/10½	1/5½
Aberdare	1/10½	1/5½
Abergavenny	1/10½	1/5½
Abingdon	1/9	1/4½
Accrington	1/10½	1/5½
Aldeburgh	1/7	1/3
Aldershot	1/9	1/4½
Alfreton	1/10½	1/5½
Alnwick	1/10	1/5½
Altrincham	1/10½	1/5½
Amble	1/10	1/5½
Amersham	1/9	1/4½
Ammanford	1/10½	1/5½
Andover	1/8½	1/4½
Ardingly	1/8½	1/4½
Arundel	1/8½	1/4½
Ascot	1/8½	1/4½
Ashby-de-la-Zouch	1/10½	1/5½
Ashford (Kent)	1/8½	1/4½
Ashford (Middlesex)	1/10½	1/5½
Ashington	1/10	1/5½
Ashtead	1/10½	1/5½
Ashton-under-Lyne	1/10½	1/5½
Aylesbury	1/8½	1/4½
Aylsham	1/7½	1/3½
Bagshot	1/8½	1/4½
Banbury	1/8½	1/4½
Barnsley	1/10½	1/5½
Barnstaple	1/8½	1/4½
Barrow-in-Furness	1/10½	1/5½
Barry	1/10½	1/5½
Basingstoke	1/8½	1/4½
Bath	1/10	1/5½
Batley	1/10½	1/5½
Beaconsfield	1/9	1/4½
Beccles	1/7	1/3
Bedford	1/10	1/5½
Berkhamsted	1/8½	1/4½
Berwick	1/10	1/5½
Beverley	1/10½	1/5½
Bexhill-on-Sea	1/9	1/4½
Bideford	1/8½	1/4½
Biggleswade	1/8½	1/4½
Billericay	1/8	1/3½
Birchington	1/8½	1/4½
Birkenhead	‡2/0½	¶
Birmingham	†1/10½	1/5½
Bishop Auckland	1/10½	1/5½
Bishop's Stortford	1/9½	1/5
Blackburn	1/10½	1/5½
Blackpool	1/10½	1/5½
Blyth	1/10½	1/5½
Bognor Regis	1/8½	1/4½
Bolton	1/10½	1/5½
Bournemouth	1/9½	1/5
Bracknell	1/8½	1/4½
Bradford	1/10½	1/5½
Bradford-on-Avon	1/7½	1/3½
Braintree	1/8½	1/4½
Brentwood	1/10	1/5½
Bridgwater	1/9	1/4½
Bridlington	1/10	1/5½
Brighouse	1/10½	1/5½
Brighton	1/9½	1/5
Bristol	1/10½	1/5½
Broadstairs	1/8½	1/4½
Bromsgrove	1/10	1/5½
Buckley	1/10½	1/5½
Bungay	1/6½	1/2½
Burnham-on-Crouch	1/7	1/3
Burnley	1/10½	1/5½
Burslem	1/10½	1/5½
Burton-on-Trent	1/10½	1/5½
Bury	1/10½	1/5½
Bury St. Edmunds	1/8	1/3½
Buxton	1/10	1/5½
Byfleet	1/9	1/4½
Cambridge	1/10½	1/5½
Canterbury	1/8½	1/4½
Cardiff	1/10½	1/5½
Carlisle	1/10½	1/5½
Carnforth	1/10½	1/5½
Castleford	1/10½	1/5½
Caterham	1/10½	1/5½
Chard	1/7½	1/3½
Chatham	1/9½	1/5
Chelmsford	1/10	1/5½
Cheltenham	1/9½	1/5
Chepstow	1/10	1/5½
Chertsey	1/9½	1/5
Chester	1/10½	1/5½
Chesterfield	1/10½	1/5½
Chichester	1/8½	1/4½
Chorley	1/10½	1/5½
Cirencester	1/8	1/3½
Clacton	1/8½	1/4½
Cleveleys	1/10½	1/5½
Clitheroe	1/10½	1/5½
Cobham (Surrey)	1/9½	1/5
Colchester	1/10	1/5½
Colwyn Bay	1/9½	1/5
Congleton	1/10	1/5½
Coventry	1/10½	1/5½
Cranbrook	1/8½	1/4½
Cranleigh	1/8½	1/4½
Crawley	1/8½	1/4½
Crewe	1/10	1/5½
Cromer	1/7½	1/3½
Crowborough	1/8½	1/4½
Cuckfield	1/8½	1/4½
Darlington	1/10½	1/5½
Darwen	1/10½	1/5½
Daventry	1/9	1/4½
Deal	1/8½	1/4½
Denbigh	1/9½	1/5
Derby	1/10½	1/5½
Devizes	1/7½	1/3½
Dewsbury	1/10½	1/5½
Didcot	1/8½	1/4½
Diss	1/7	1/3
Doncaster	1/10½	1/5½
Dorchester	1/8	1/3½
Dorking	1/9	1/4½
Dover	1/8½	1/4½
Dovercourt	1/8½	1/4½
Driffield	1/9	1/4½
Droitwich	1/10	1/5½
Dudley	1/10½	1/5½
Dunstable	1/9	1/4½
Durham City	1/10½	1/5½
Eastbourne	1/9½	1/5
E. Glam. (Mon. Val.)	1/10½	1/5½
East Grinstead	1/8½	1/4½
Edenbridge	1/8½	1/4½
Ely	1/7½	1/3½
Epping	1/10½	1/5½
Exeter	1/10	1/5½
Exmouth	1/9	1/4½
Fakenham	1/7½	1/3½
Falmouth	1/9	1/4½
Fareham	1/9½	1/5
Faversham	1/8½	1/4½
Felixstowe	1/9½	1/5
Filey	1/9	1/4½
Fleetwood	1/10½	1/5½
Flint	1/10½	1/5½
Folkestone	1/8½	1/4½
Frinton-on-Sea	1/8½	1/4½
Frome	1/7½	1/3½
Gainsborough	1/9½	1/5
Gateshead	1/10½	1/5½
Gillingham (Kent)	1/9½	1/5
Glossop	1/10½	1/5½
Gloucester	1/10	1/5½
Godalming	1/8½	1/4½
Goole	1/10½	1/5½
Gosport	1/10	1/5½
Grantham	1/9½	1/5
Gravesend	1/10	1/5½
Great Yarmouth	1/8½	1/4½
Grimsby	1/10½	1/5½
Guildford	1/8½	1/4½
Guilsborough	1/9	1/4½
Halifax	1/10½	1/5½
Hanley	1/10½	1/5½
Harpenden	1/9½	1/5
Harrogate	1/10½	1/5½
Hartlepools	1/10½	1/5½
Harwich	1/8½	1/4½
Haslemere	1/8½	1/4½
Hastings	1/8½	1/4½
Hatfield	1/10	1/5½
Haywards Heath	1/8½	1/4½
Hednesford	1/10	1/5½
Hemel Hempstead	1/9½	1/5
Henley-on-Thames	1/8½	1/4½
Hereford	1/8½	1/4½
Herne Bay	1/8½	1/4½
Hertford	1/10	1/5½
Heysham	1/10½	1/5½
Hitchin	1/9½	1/5
Hoddesdon	1/10	1/5½
Holt (Norfolk)	1/7	1/3
Horley	1/8½	1/4½
Horsham	1/8½	1/4½
Horwich	1/10½	1/5½
Huddersfield	1/10½	1/5½
Hull	1/10½	1/5½
Hunstanton	1/7½	1/3½
Huntingdon	1/8	1/3½
Ilfracombe	1/8½	1/4
Ingatestone	1/9	1/4½
Ipswich	1/10	1/5½
Isle of Thanet	1/8½	1/4½
Isle of Wight	1/8	1/3½
Keighley	1/10½	1/5½
Kenilworth	1/10½	1/5½
Kettering	1/10½	1/5½
Kidderminster	1/10	1/5½
King's Lynn	1/8½	1/4½
Kirkham	1/10½	1/5½
Knowle	1/10	1/5½
Lancaster	1/10½	1/5½
Leamington	1/10½	1/5½
Leatherhead	1/9½	1/5
Leeds	1/10½	1/5½
Leicester	1/10½	1/5½
Leighton Buzzard	1/7½	1/3½
Letchworth	1/9½	1/5
Lewes	1/8½	1/4½
Lichfield	1/9½	1/5
Lincoln	1/10½	1/5½
Littlehampton	1/8½	1/4½
Liverpool	‡2/0½	¶
Llandudno	1/9½	1/5
Llanelly	1/10½	1/5½
London—		
12m. radius	*2/0	1/6½
12-15m. radius	*1/11½	1/6½
Long Eaton	1/10½	1/5½
Longton	1/10½	1/5½
Loughborough	1/10½	1/5½
Louth	1/9	1/4½
Lowestoft	1/8½	1/4½
Luton	1/10	1/5½
Macclesfield	1/10	1/5½
Maidenhead	1/9½	1/5
Maidstone	1/9	1/4½
Malvern	1/9	1/4½
Manchester	1/10½	1/5½
Manningtree	1/7½	1/3½
Mansfield	1/10½	1/5½
March	1/7½	1/3½
Margate	1/8½	1/4½
Market Harborough	1/9½	1/5
Matlock	1/9	1/4½
Melton Constable	1/7	1/3
Melton Mowbray	1/9½	1/5
Merthyr	1/10½	1/5½
Middlesbrough	1/10½	1/5½
Middleton	1/10½	1/5½
Middlewich	1/10	1/5½
Milford Haven	1/9	1/4½
Morecambe	1/10½	1/5½
Morley	1/10½	1/5½
Mundesley	1/7½	1/3½
Nantwich	1/10	1/5½
Nelson	1/10½	1/5½
Newark-on-Trent	1/10	1/5½
Newbury	1/8½	1/4½
Newcastle-on-Tyne	1/10½	1/5½
Newcastle-u.-Lyme	1/10½	1/5½
New Forest	1/8½	1/4½
Newmarket	1/8½	1/4½
Newport, Mon.	1/10½	1/5½
Newport Pagnell	1/8½	1/4½
Northampton	1/10½	1/5½
Norwich	1/10½	1/5½
Nottingham	1/10½	1/5½
Nuneaton	1/10½	1/5½
Oakham	1/9	1/4½
Oldham	1/10½	1/5½
Ormskirk	1/10½	1/5½
Oxford	1/10	1/5½
Oxted	1/9	1/4½
Paignton	1/10	1/5½
Peterborough	1/10	1/5½
Plymouth	1/10½	1/5½
Pontefract	1/10½	1/5½
Pontypridd	1/10½	1/5½
Port Talbot	1/10½	1/5½
Portsmouth	1/10	1/5½
Preston	1/10½	1/5½
Pulborough	1/8½	1/4½
Ramsgate	1/8½	1/4½
Reading	1/10	1/5½
Redditch	1/10	1/5½
Redhill	1/9	1/4½
Ripon	1/9	1/4½
Rochdale	1/10½	1/5½
Rochester	1/9½	1/5
Rugby	1/10½	1/5½
St. Albans	1/10	1/5½
St. Helens	1/10½	1/5½
St. Neots	1/8	1/3½
Saffron Walden	1/7½	1/3½
Salisbury City	1/8	1/3½
Salisbury Plain	1/9½	1/5
Sawbridgeworth	1/9	1/4½
Saxmundham	1/7	1/3
Scarborough	1/10	1/5½
Scunthorpe	1/10½	1/5½
Selby	1/10½	1/5½
Sevenoaks	1/9	1/4½
Sheerness	1/8½	1/4½
Sheffield	1/10½	1/5½
Shipley	1/10½	1/5½
Shoeburyness	1/10	1/5½
Shoreham	1/9½	1/5
Shrewsbury	1/10	1/5½
Sittingbourne	1/8½	1/4½
Skegness	1/9½	1/5
Sleaford	1/9	1/4½
Slough	1/9½	1/5
Southampton	1/10	1/5½
Southend-on-Sea	1/10	1/5½
Southport	1/10½	1/5½
South Shields	1/10½	1/5½
Spalding	1/8½	1/4½
Stafford	1/10	1/5½
Staines	1/9½	1/5
Stamford	1/9½	1/5
Stevenage	1/9½	1/5
Stockport	1/10½	1/5½
Stockton-on-Tees	1/10½	1/5½
Stoke-on-Trent	1/10½	1/5½
Stourbridge	1/10½	1/5½
Stourport	1/10	1/5½
Stowmarket	1/7½	1/3½
Stratford-on-Avon	1/9½	1/5
Stroud	1/9½	1/5
Sunderland	1/10½	1/5½
Sutton Coldfield	1/10½	1/5½
Swaffham	1/7	1/3
Swanage	1/8½	1/4½
Swansea	1/10½	1/5½
Swindon	1/9	1/4½
Tamworth	1/10	1/5½
Taunton	1/9	1/4½
Tenterden	1/8½	1/4½
Thames Haven	1/10½	1/5½
Thetford	1/8	1/3½
Thorpe Bay	1/10	1/5½
Todmorden	1/10½	1/5½
Tonbridge	1/9	1/4½
Torquay	1/10	1/5½
Totnes	1/8½	1/4½
Trowbridge	1/7½	1/3½
Truro	1/8	1/3½
Tunbridge Wells	1/9	1/4½
Uppingham	1/9	1/4½
Uttoxeter	1/9	1/4½
Wakefield	1/10½	1/5½
Walsall	1/10½	1/5½
Walsden	1/10½	1/5½
Walton-on-Naze	1/8½	1/4½
Ware	1/10	1/5½
Warminster	1/7½	1/3½
Warrington	1/10½	1/5½
Warwick	1/10½	1/5½
Wellington R.D.	1/10	1/5½
Welwyn	1/9½	1/5
Welwyn Gar. City	1/10½	1/5½
Wells (Norfolk)	1/7	1/3
West Bromwich	1/10½	1/5½
Westcliff-on-Sea	1/10	1/5½
Weston-super-Mare	1/9½	1/5
Weybridge	1/9½	1/5
Weymouth	1/8½	1/4½
Whitby	1/9½	1/5
Whitstable	1/8½	1/4½
Widnes	1/10½	1/5½
Wigan	1/10½	1/5½
Wigton	1/9	1/4½
Willington	1/10½	1/5½
Wilmslow	1/10½	1/5½
Winchester	1/9	1/4½
Windermere	1/9	1/4½
Windsor	1/9½	1/5
Wisbech	1/8	1/3½
Witham	1/8½	1/4½
Woking	1/9	1/4½
Wokingham	1/8½	1/4½
Wolverhampton	1/10½	1/5½
Woodbridge	1/8	1/3½
Worcester	1/10	1/5½
Workington	1/9	1/4½
Worksop	1/10	1/5½
Worthing	1/8½	1/4½
Wrexham	1/10	1/5½
Wroxham	1/8	1/3½
Wycombe	1/9½	1/5
Wymondham	1/7½	1/3½
Yeovil	1/9	1/4½
York	1/10½	1/5½

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1.

¶ Tradesman's Labourers, 1/6½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 50.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery. At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

The price for Stock Bricks has been altered to minimum price at works for full lorry loads. Sittingbourne district. A quotation for cartage should be obtained as the haulage question is difficult.

	£ s. d.
First Hard Stocks ..... per 1,000	4 5 6
Second Hard Stocks ..... "	3 18 6
Mild Stocks ..... "	3 5 6
Single Rough Stocks ..... "	2 19 6
Third Common Stocks ..... "	2 10 0

	King's Cross Station per 1,000	To sites in W.C. District per 1,000
2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	s. d.	s. d.
Pressed	51 9	58 3
Keyed	53 9	60 3
Single Bullnose	71 9	78 3
Rustics	71 9	78 3
Whites	72 3	78 3
White Midhurst Best selected (delivered London site)	£ s. d. 5 10 0	
Best blue Pressed Staffs. (London Stns.)	10 2 0	
Do. Bullnose (London Stns.)	10 12 0	
Blue Wire Cuts (London Stns.)	8 19 6	

Best Stourbridge Fire Brick (London Stns.) :—

£ s. d.		£ s. d.
2½ in. 10 0 0	3 in.	12 0 0

GLAZED BRICKS. (London Stns.)

Best White Ivory	D'ble Str'tch'rs	36 10 0
and Salt Glazed	D'ble Headers	33 10 0
Stretcher.....28 0 0	One side&two ends	37 10 0
Headers 27 10 0	Two sides&one end	38 10 0
Quoins, Bullnose and 4½in. Flats 34 10 0	Splays and Squints	36 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

	s. d.		s. d.
2" per yd. sup.	2 3	3" per yd. sup. ..	2 9
2½ " "	2 6	4" " ..	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 9	3" per yd. sup. ..	2 6
2½ " "	2 1	4" " ..	3 4

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 6
Size 12 x 9 x 2½ "	2 9
Size 12 x 9 x 3" "	3 3
Size 12 x 9 x 4" "	3 7

Plus 2d. for smooth one side, and 4d. for smooth both sides.

Delivered: Free on site London area.

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 3 3½

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station.. per ft cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., ...per ft. cube	4 7
Do. do. delivered on road waggons as above stations ..... per ft. cube.	4 7

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) .....per ft. super	5 6
6 in. rubbed two sides, ditto .... "	6 3
3 in. sawn two sides slabs (random sizes) ..... "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... "	1 8½
1½ in. to 2 in. ditto ..... "	1 4½

HARD YORK—

Delivered at any Goods Station, London.

Scrappled random blocks .....per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) .....per ft.super	5 7½
6 in. rubbed two sides, ditto .... "	6 9
4 in. sawn two sides slabs (random sizes) ..... "	3 5
3 in. ditto ditto ..... "	2 8
2 in. self-faced random flags.....per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

SAND.

Thames Ballast	9s. 6d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9s. 0d. " "	
Pit Sand	11s. 6d. " "	
Washed Sand	13s. 0d. " "	
¼ in. Shingle	10s. 0d. " "	
¼ in. Broken Brick	15s. 6d. " "	
Pan Breeze	9s. 6d. " "	

CEMENT.

Best British Portland Cement. Standard Specification. delivered London Area. £ s. d.

6 ton loads and upwards site	per ton	2 9 6
1 ton to 6 tons site		2 12 6
Alongside Vauxhall in 80 ton lots		2 7 0
"Ferrocrete" Rapid Hardening Cement—		
6 ton loads and upwards site		2 15 6
1 ton to 6 tons site		2 18 6
Alongside Vauxhall in 80 ton lots		2 13 0

Stored in Reserved Bins at works. 1s. 6d. per ton extra.

"Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton extra on ordinary "Blue Circle" prices.	
"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement, in 6-ton lots ..	3 19 6
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.	
"Snowcrete" White Portland Cement 10	5 0
"417" Cement (Ultra Rapid Hardening) Delivered site London Area in 6 ton lots and upwards ..... per ton	3 9 6

Plus packages at current prices.

Super Cement (Waterproof), *bags extra*	3 19 6

NOTE.—Paper bags will be charged at the rate of 7s. nett per ton. Jute sacks charged 1s. 9d. nett each and 1s. 6d. nett each allowed if returned to works within two weeks, in good condition.

Carriage will be paid by makers on returned empty jute sacks.

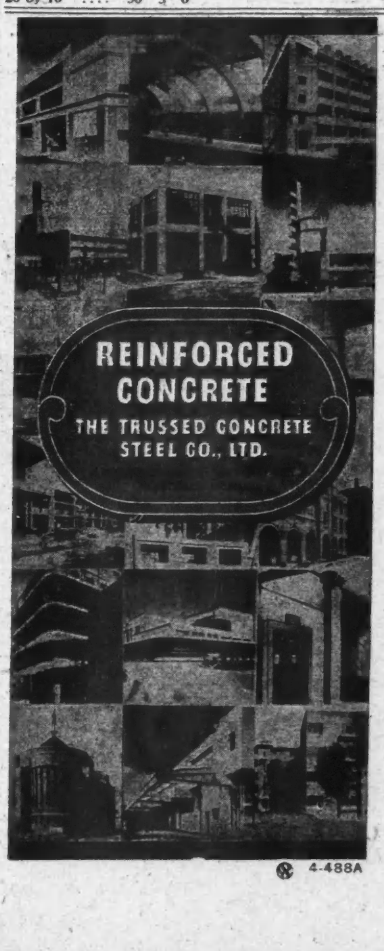
£ s. d.		£ s. d.
Roman cement 8 10 0	Keene's Cement, White	7 0 0
Parian Cement 7 0 0	" " Pink	6 10 0

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		



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PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Sirapite, Coarse..	4 5 6
" White ..	4 7 6	" Finish ..	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	3 7 6	Grey Stone Lime	2 17 6
		Chalk Lime	2 17 6
Granite Chippings	1 15 0	Hair per cwt. ..	3 5 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons..... Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£5 6 6
Ditto hand-made ditto	6 7 6
Ornamental ditto	6 14 0
Hip and valley tiles (per dozen) { Hand-made ..... Machine-made	0 12 9 0 12 3

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	s. d.		Foot cube. £ s. d.
Dry English Wainscot Billets..	16 0	to	0 18 0
Dry Slavonian Billet Wainscot ..	17 0	to	1 0 0
Dry Cuba Mahogany logs 21	0	to	1 4 0
Square-edged Honduras Mahogany			0 16 6
Log Cut Honduras Mahogany			0 17 6
American Figured Oak			0 13 0
American Plain Oak			0 12 6
Jap. Figured Oak			0 13 0
Jap. Plain Oak			0 12 6
Teak			0 15 6
American Whitewood			0 12 6
African Whitewood			0 8 0
African Mahogany			0 11 0
Australian Walnut			0 19 0
Australian Silky Oak			0 12 6
Best Scotch glue ..... per cwt.			5 0 0
Liquid glue ..... per gallon			1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2 in. by 3 in. to 4 in. by 11 in.	43 10 0	53 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	67 10 0

	Per square. s. d.
1 in. plain edge flooring	53 0
1½ in. ditto	66 6
1 in. tongued and grooved	53 0
1½ in. ditto	66 6

MATCHING.

	Per square. s. d.
¾ in.	37 6
½ in.	42 0
1 in.	55 0

PLUMBERS' BRASS WORK.

Delivered in London.

To pass Met. Water Board.

CRUTCH HEAD S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
37/-	58/6 per doz.

CHROMIUM PLATED TOILET S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
52/3	72/- per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/-	59/-	97/-	228/-	324/-	540/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
53/-	84/-	136/-	252/-	405/-	664/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
9/11	11/-	17/6	29/3	49/6	71/- per doz.

HEAVY CROYDON BALL VALVES. SCREW IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
45/-	73/-	120/-	210/-	297/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
11/9	14/5	21/6	37/9	54/-	59/6 per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/9	13/6	25/-	37/-	46/- per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ in.	1½ in.	2 in.	3 in.
8 lb. Lead P. ..	26/-	34/8	48/3	84/- per doz.
8 lb. Lead S. ..	32/6	41/6	60/-	108/- "

SOLDER.—Plumbers, 1/5. Tinmen's, 1/8. Blow pipe, 1/10 per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(contd.)

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION PER TON—

	£	s.	d.
R.S. Joists, cut and fitted	£23	10	0
Plain Compound Girders	26	0	0
" Stanchions	28	10	0
" In Roof Work	33	10	0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	23	0	0	⅛ in. to ¼ in...	21	10	0
⅜ in.	22	0	0	⅜ in. to 2½ in...	21	0	0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½ % gross.

	Tubes. ½"/6" %	Tubulars. ½"/6" %	10/17 19/24 %	Flanges. ½"/2" %	2½"/6" %
Light weight ..	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv.lightweight	40½	—	38½	39½	48½
Galv.heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ½"/⅜" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works.

per yd. in 6 ft. lengths.	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.G. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20	7/11	7/1	12/6
5 in. 1 2 22	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin, 75/- per cwt.

	Per ton basis in London. £	s.	d.
IRON.—Staffordshire Crown, Merchant quality	18	7	6
IRON.—Staffordshire Marked Bars	19	7	6
Mild Steel Bars	19	15	0
Mild Steel Hoops	21	10	0

	Ex Merchant's Stock, per ton (two-ton lots).		
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	24	17	6
24 gauge	25	2	6
26 gauge	25	17	6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.			
20 gauge	27	0	0
24 gauge	27	10	0
26 gauge	28	15	0
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	28	10	0
24 gauge	29	0	0
26 gauge	30	5	0

	Per ton. £	s.	d.
Cut Nails, 3 in. and up	28	10	0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil (5 galls.) .. per gallon	0	5	5
Boiled Linseed Oil (5 galls.) .. "	0	5	8
Turpentine (5 galls.) .. .. "	0	8	9
Genuine Ground English White Lead, per cwt.	3	8	3
Genuine White Lead Paint, 14 lb. tins free, per cwt.	4	11	0
Genuine Red Lead, .. "	2	14	0
Linseed Oil Putty .. "	1	1	3
Size. XD quality .. ffkn.	0	4	3

Turpentine substitute can be obtained and prices vary according to quality from 3/3 gallon upwards.

	£	s.	d.
SNOWCEM CEMENT PAINT .... per cwt.	2	16	0
C.M.C. CAMOUFLAGE PAINT .... "	2	16	0

VARNISHES, &c.

	Per gallon. £	s.	d.
Oak Varnish .. Outside	0	16	0
Fine do. .. "	0	18	0
Fine Copal .. "	1	0	0
Pale Copal .. "	1	2	0
Pale Opal Carriage .. "	1	6	0
Best do. do. .. "	1	14	0
Floor Varnish .. Inside	1	0	0
Fine Pale Paper .. "	1	0	0
Fine Copal Cabinet .. "	1	4	0
Fine Copal Flatting .. "	1	2	0
Hard Drying Oak .. "	1	0	0
Fine Hard Drying Oak .. "	1	1	6
Fine Copal Varnish .. "	1	2	6
Pale do. .. "	1	14	0
Best do. .. "	1	4	6
Best Japan Gold Size .. "	1	14	6
Best Black Japan ..	0	12	0
Oak and Mahogany Stain (water) ..	0	14	0
Brunswick Black ..	0	9	6
Berlin Black ..	0	16	0
Knotting (patent) ..	0	17	0
French and Brush Polish ..	0	14	0
Liquid Dryers in Terebene ..	0	11	0
Cuirass Black Enamel ..	0	9	0

LEAD, &c.

	Per ton. £	s.	d.
(Delivered in London.)			
LEAD.—Sheet, English, 4 lb. and up ..	35	10	0
Pipe in coils ..	35	0	0
Soil pipe ..	40	10	0
Compo pipe ..	42	5	0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills .. per ton } £18 0 0.

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.).

PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

	O.Q.	S.Q.
18 oz. in 300 ft. cases ..	2½d.	2¾d.
24 oz. " 200 ft. " ..	3½d.	4d.
26 oz. " 200 ft. " ..	3¾d.	4½d.
32 oz. " 200 ft. " ..	5½d.	6½d.
24 oz. " 300 ft. cases ..	3½d.	3¾d.
26 oz. " 300 ft. " ..	3¾d.	4¼d.
32 oz. " 300 ft. " ..	5¼d.	6¼d.
24 oz. Obscured Sheet ..		6½d.
Fluted, 21 oz. ..		9d.
Enamelled, 18 oz. ..		5½d.
" 24 oz. ..		6½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.

	Per ft. s.	d.
Rolled plate, ¼ in. ..	5½d.	
Rough cast double rolled, ⅜ in. ..	6½d.	
Rough cast double rolled, ½ in. ..	6½d.	
Figured rolled, and Cathedral, white ..	6½d.	
Figured rolled and Cathedral, tinted ..	9½d.	
Rolled Sheet ..	6d.	
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick ..	0	10½

Rolled plate is the same price as rough cast double rolled.

	s.	d.
Wire Rolled, ¼ in. thick ..	0	9½
Wired Cast, ¼ in. thick ..	0	9½
Georgian Wired Cast ..	0	10
"Calorex" Sheet, 21 oz. ..	2	6
" 32 oz. ..	4	0
" " Cast, ¼ in. thick ..	0	10
" " ⅜ in. thick ..	1	0
" " ½ in. thick ..	1	2
Non Actinic Glass, ¼ in. thick ..	0	9½
" " " ⅜ in. thick ..	1	0
" " " ½ in. thick ..	1	2

"VITA" GLASS.

	Per ft. s.	d.
"Vita" Plate Glass, about ¼ in. thick ..	5	0
To 7 ft. super ..	7	6
Over 7 ft. super ..	2	0
"Vita" Sheet Glass, about 18/20 oz. ..		
Cathedral "Vita" Glass :		
¼ in. thickness ..	2	0
⅜ in. " ..	3	0
½ in. Georgian Wired "Vita" Glass ..	3	6

GLASS BRICKS.

	s.	d.	
P.B. 1—8 in. × 4½ in. × 3½ in. ..	2	3	each nett
P.B. 2—5½ in. × 5½ in. × 3½ in. ..	2	0	"
P.B. 3—7½ in. × 7½ in. × 3½ in. ..	3	0	"
P.B.32—7½ in. × 7½ in. × 3½ in. ..	3	0	"
Radiused Corner Bricks to match up with—			
P.B. 2 ..	3	9	each nett
P.B. 3 ..	5	0	"
P.B.32 ..	5	0	"

BUILDING TRADE WAGES IN SCOTLAND

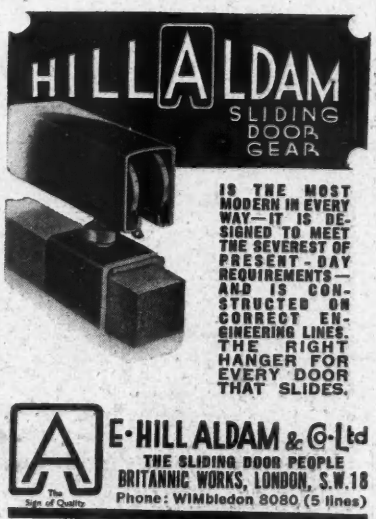
Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	1/11½	1/11	1/10½	1/10	1/9½	1/9
Labourers	1/6	1/5½	1/5½	1/5	1/4½	1/4½

A	A1	A2	A3	B	B1
Aberdeen	Dumfriesshire	Inverness*		Perthshire	
Ayrshire	Dundee	Inverurie		Peterhead	
Banff	Dunoon	Kincardineshire		Renfrewshire	
Berwickshire	East Fife	Kinross-shire		Rothesay	
Bridge of Allan	East Lothian	Lanarkshire		Roxburghshire	
Broughty Ferry	Edinburgh	Midlothian		St. Andrews	
Clackmannanshire	Fifeshire	Monifieth		Selkirkshire	
Doune	Forfarshire	Moray and Nairn		Stewartry	
Dunblane	Glasgow	Newport		Stirlingshire	
Dumbartonshire	Greenock	Peeblesshire		Stornoway	
Dumfries	Hamilton	Perth		Tayport	
				West Lothian	

*This town has its own rates : Masons, 1/8½ ; Carpenters, 1/8½ ; Slaters, 1/8½ ; Plumbers, 1/9 ; Plasterers, 1/9½, but 1/10 is paid owing to the scarcity at present ; Painters, 1/8½ and Labourers, 1/4

The information given in this table is copyright. Rates of wages in England and Wales are given on page 48.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THE SCOTTISH BUILDER

NEW BUILDINGS

AIRDRIE. — NURSERY.—Corporation to erect at Hallcraig House, a nursery, at £3,000, the architect being J. K. Fraser, Old Royal Bank-bldgs., Graham-st.

GLASGOW.—BUILDING.—Plans in the hands of D. S. Waugh, 12, Tyndale-av., High Blantyre, Rutherglen, for shed buildings.

GLASGOW.—BUILDING.—Plans in hand for new sub-station, the architects being Miller & Black, 132, West Regent-st., Blythswood, Glasgow.

SCOTSTOUN.—ALTERATIONS, ETC.—Alterations and extensions to offices, the architect being T. O. W. Grattan, 1, Eglinton-cres., Edinburgh.

Electrical Contracting Industry Wages.

National Joint Industrial Council declares that as from the second pay-day in January, 1942, for the pay-period covered by that pay-day, the Cost of Living (War) Addition shall be 18s. 9d. per week, and that such addition shall remain current up to and including the first pay-day in April, 1942.

BRITISH RESTAURANTS AND CANTEENS

Alton. — R.D.C. approved temporary kitchens at two schools.

Altrincham. — E.C. propose additional feeding facilities at Watling Gate school and feeding centre at Oldfield Brow school. Plans by E. M. Slater, B.S.

Blantyre. — Mm. Watt, Albert-st., Motherwell, preparing plans for B.R.

Brierley Hill.—U.D.C. propose conversion of premises for additional feeding centres. Plans by R. H. J. Comber, S.

Brighouse.—T.C. approved canteen for Ormerod Bros., Ltd.

Brighouse.—Premises at Rastrick and Hipperholme to be converted for B.R., at £4,850. Plans by H. A. Sneezum, B.S.

Conisborough.—G. Booth & Sons propose canteen.

Coventry. — E.C. propose school canteens. Plans by D. E. E. Gibson (A.), City Architect, 1A, Warwick-row.

Cradley Heath.—Danks of Netherton, Ltd., propose canteen.

Derbyshire. — E.C. propose adapting part of institute, Bamford, for school canteen.

Doncaster. — E.C. propose school canteens.

Driffield.—U.D.C. propose conversion of premises into B.R. Plans by P. Kershaw, S.

Durham.—County E.C. to set up canteen at Shildon senior boys' school. Plans by F. Willey, 34, Old Elvet, Durham.

Eccles. — T.C. propose conversion of Vane-st. handicraft centre for dining hall and also Eccles Congregational Sunday-schools. Plans by T. Elce, B.E.—T.C. approved: Canteen and dining-room for Mitchell, Shackleton & Co., Ltd.

Glasgow. — Thomas S. Cordiner, 261, West George-st., Blythswood, Glasgow, prepared plans for canteen.

Halifax. — T.C. propose adaptation of premises for two additional B.R. Plans by D. T. Lloyd Jones, B.S.

Hinckley.—U.D.C. propose the conversion of premises at Barwell for B.R. J. S. Featherston, S., Council Offices, Hinckley.

Jarrow.—T.C. to provide B.R. at the Baths Hall. Plans by J. S. Weir, B.E.

Leeds.—T.C. propose conversion of premises at Stanningley for communal feeding centre.

Leigh.—T.C. propose adaptation of premises at Ellesmere-st. for community cooking depot. Plans by T. A. Clare, B.S.

Leyland.—U.D.C. propose conversion of premises for B.R. Plans by F. D. Howe, S.

Liverpool.—Watch Committee approved canteens for police force.

Ludlow.—R.D.C. propose conversion of first floor of assembly hall, Cleobury Mortimer, for B.R. Plans by G. W. Graham, S.

Rishton.—U.D.C. propose adaptation of King's Hall for B.R. Plans by R. W. Renshaw, S.

Ossett.—T.C. approved canteen for J. E. Glover.

Salford.—E.C. propose school canteens, also breakfast centre at Salford Dock Mission premises. Plans by W. A. Walker, C.E.

Shildon. — U.D.C. to set up B.R. in Church-st. War time nursery proposed in St. John's-rd.

Stalybridge.—T.C. propose conversion of premises into B.R.—Canteen proposed at municipal school.

Stoke-on-Trent.—T.C. propose messroom and rest-room at cleansing depot.—T.C. approved canteen for R. Goodwin & Son, Ltd.

Tamworth.—T.C. propose conversion of premises into B.R. Plans by J. L. Bleazard, B.S.

Wolverhampton. — T.C. propose additional B.R. at Dunkley-st. and messroom at Culwell.

CURRENT AND PROPOSED NEW BUILDINGS

Barnard Castle.—U.D.C. approved plans for alterations to "Coach and Horses" Inn, Galgate.

Caernarvon. — Board of Governors of County school propose extensions to dining-hall.

Chester.—T.C. approved: Extensions to premises for Will R. Rose, Ltd.; extensions for Pratt, Leyick & Co., Ltd.; extensions for Williams & Williams, Ltd.

Chesterfield. — E.C. propose day nurseries.

Derbyshire. — E.C. instructed C.A. to prepare plans for remodelling Ironville and Codnor Park school, Alfreton.

Eckington.—County Youth Committee of Derbyshire C.C. propose youth centre, at £750.

Hartford (Ches.). — National Fire Service propose extensions.

Hinckley.—U.D.C. approved: Garage and lavatories, Westfield-rd., for Midland Packing Case Co.

Lancashire.—C.C. propose to adapt "Northlands," Great Harwood, for residential nursery.

Lancaster.—T.C. propose the erection of pre-fabricated buildings for day nurseries.

Lincolnshire (Kesteven Div.).—C.C. propose alterations and additions to County Offices at Sleaford, at £3,000. Plans by C. B. Metcalfe (F.), County Architect.

Liverpool. — E.C. propose erection of memorial gymnasium at the College, Shaw-st., Anfield, at £3,500.

Macclesfield. — Watch Committee propose additional accommodation at police station. Plans by M. A. Tetlow (A.), Boro' Architect.

Manchester.—T. Holmes, Ltd., propose rebuilding premises at Strangeways.

Merionethshire.—C.C. propose construction of filter and reservoir. Plans by N. L. Jones, C.A., County Offices.

Northamptonshire.—Higher Education Committee propose establishment of youth centres, at £2,000.

Notts.—C.C. propose to acquire Risley Hall, Sandiacre, for an approved school. Plans by E. W. Roberts (A.), C.A.

Rochdale. — E.C. to acquire "Mount Green," Dearnley, for reception home for children.

Sedgley.—Sydney Butler proposes erection of playhouse and ballroom, at £5,000.

Shildon. — U.D.C. propose nursery in St. John's-rd.

Shipley.—U.D.C. propose day nursery.

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SECURE CONTRACTS WITH

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Shrewsbury.—E.C. propose conversion of annexe at Monkmoor Girls' school for day nursery. Plans by A. W. Ward, B.S.

Skipton.—R.D.C. propose resetting of one bed of six horizontal retorts.

Soke of Peterborough. — C.C. propose remand home at Ely.

Stafford.—T.C. propose to adapt infant welfare at North Walls for day nursery. Plans by W. Plant, B.S.

Swinton and Pendlebury. — T.C. approved: Extensions to garage for Lawton's Transport Co., Ltd., Clifton.—T.C. propose central garage. Plans by B.S.

West Riding. — E.C. propose nursery classes in schools, at £2,000.

Winsford.—U.D.C. propose adaptation of premises for day nursery.

Wolverhampton.—E.C. propose conversion of "Woodlands" for day nursery.

Workington.—T.C. approved: Conversion of premises at Church-rd., Harrington, into a cinema, for A. Coghlan, East View, Carleton-rd., Carlisle.

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Bilston.—External and internal decoration of 160 houses, for T.C. A. F. B. Sidwick, B.S.: *H. J. Holden, 43, Broad-st., Bilston, £1,408.

Brighouse.—(1) Painting of two wards and kitchen, (2) plumbers' work at isolation hospital, Clifton, for T.C. H. A. Sneezum, B.S.: (1) *W. Hampson, Upper Bonegate, £44; (2) *John Kilburn, Victoria Mill, £340. (Both of Brighouse.)

Durham.—Canteen, at Horden Colliery: *Jas. Huntley & Sons, Marion-st., Sunderland.

Erith. — 48 entrance covers for public shelters, for T.C. J. H. Clayton, B.E. and S.:—

Garwell & Co., Ltd., Bexleyheath	£1,510
George Stone, Erith	1,410
R. Perfect, Bexleyheath	1,226
D. G. Wynn, Ltd., London, S.E.14	1,069
R. Mansell, Ltd., Bromley	1,036
North Kent Construction Co., Ltd., Thames Steam Sawmills, Ltd., Erith	960
R. A. Birchley (Builders), Ltd., Coulsdon	935
W. J. Draper & Son, Dartford	920
Marron & Cave, London, E.1	848
W. Hopkins, Dartford	810
*Franklin & Co. (Erith), Ltd., Erith	798
Swain & Gibbs, London, S.W.15	521

Kidderminster. — Laying of approx. 5,000 lin. yds. of 9-in. cast-iron pipes and other incidental works, for T.C. B.E. and S.: *D. J. Wagner, 159, Station-rd., Knowle, Birmingham, £11,920.

London (Air Ministry). — Contracts placed to the value of £500 or over for the week ended December 27:—

Heating work: Maddock & Wright, Leicester; Z. D. Berry & Sons, Ltd., Warrington; Newman & Watson, Ltd., London, W.1; Donald Smith & Co., Ltd., Glasgow, C.2; C. Seward & Co., Ltd., Preston.

General maintenance work: Pearn Bros., Ltd., Plymouth; J. Andrews & Sons, Belfast; Kerridge (Cambridge), Ltd., Cambridge.

Building work : Structural Contractors, Ltd., Surbiton.

Structural steelwork : C. Miskin & Sons, Ltd., St. Albans; W. James & Co., Ltd., Willesden; T. C. Jones & Co., Ltd., London, W.C.; Crittall Mfg. Co., Ltd., Braintree; Light Steelwork (1925), Ltd., Willesden; Wm. Bain & Co., Ltd., Coatbridge; F. Braby & Co., Ltd., Glasgow.

Constructional work : Aston Construction Co., Ltd., London, N.1.

Civil engineering work : John McGeoch & Sons, Ltd., Redruth; Hadsphaltic Construction Co., Ltd., Wellington.

Civil engineering and building work : Taylor Woodrow Construction, Ltd., Southall; Geo. Wimpey & Co., Ltd., Denham; John Laing & Son, Ltd., Mill Hill; W. & C. French, Ltd., Buckhurst Hill; John Mowlem & Co., Ltd., London, S.W.1; Sir R. McAlpine & Sons, London.

London (War Dept.). — Following are contracts placed by War Dept. at December 27 :—

Yorks : Miscellaneous works, Yorkshire Builders, Ltd., Prospect Works, Leeds-rd., Otley, Yorks.

Lancs : Miscellaneous works, Homes (Preston), Ltd., Atherton-rd., Fulwood, nr. Preston; T. Whittaker & Son, 130, Abercrombie-rd., Fleetwood.

Lancs : Building work, Tysons (Contractors), Ltd., Dryden-st., Liverpool; Walter Peak, 17, Church-st., Warrington.

Leics : Building work, John H. Brough & Co. (Builders), Ltd., Station-rd., Beeston, Notts.

Caernarvonshire : Miscellaneous works, William Evans, Wynn-av., Old Colwyn, N. Wales.

Suffolk : Miscellaneous works, D. Leighton & Son, Ltd., Belvedere-rd., Lowestoft, Suffolk.

Essex : Miscellaneous works, Stedman Bros., New North Works, New North-rd., Barkingside, Ilford, Essex.

Kent : Building work, R. Corben & Son, West Borough, Maidstone, Kent.

Surrey : Miscellaneous works, C. T. Corps, Ltd., Reliance Building Works, Walnut Tree Close, Guildford, Surrey; Martin, Smith & Foster, 218, London-rd., East Grinstead, Sussex; John Crewdson, Horley, Surrey.

Sussex : Miscellaneous works, H. J. Paris, Ltd., 7, Clarence-st., Brighton, 1; T. J. Braybon & Son, Ltd., 169, North-st., Brighton; Eames & Calverley, Ltd., Ringmer, Sussex; A. Clare, Ltd., South Farm-rd., Worthing; Bartley & Ward, Ltd., High-st., Crawley, Sussex.

Sussex : Building work, E. & L. Berg, Ltd., Hinchley Wood, Esher, Surrey.

Middlesbrough. — Repairs to electrical installation and generating set at auxiliary hospital, for T.C. : *Tangyes, Ltd., London, £140.

Oakengates (Salop). — Alterations to parish hall for conversion into British Restaurant, for U.D.C. M. S. Lee, S. : *A. Davies.

Standish-with-Langtree. — Construction of about 700 yds. of main sewers varying in size from 9 in. to 15 in. in dia., together with manholes and appurtenant works, for U.D.C. Charles J. Lomax & Son, 37, Cross-st., Manchester, 2 : †Thomas Coates, Bury.

Stepps.—Plaster work on 28 houses, for Lanarkshire C.C. D. McColl, County Offices, Clydesdale-st., Hamilton : *J. B. Bennett & Co., Ltd., Kilsyth, £1,125.

Wolverhampton. — Alterations and repairs to roof of market hall, for T.C. : †Southern's, Ltd., New Wolverhampton-rd., Oldbury, Worcs, £3,990.

Yorks.—Extensive works, including excavations, foundations, retaining walls, reinforced concrete work, fire station, canteens, rest rooms, underground pumphouse, sewage works, etc. : *Beedon, Ltd., Park-la., Thrybergh, nr. Rotherham.

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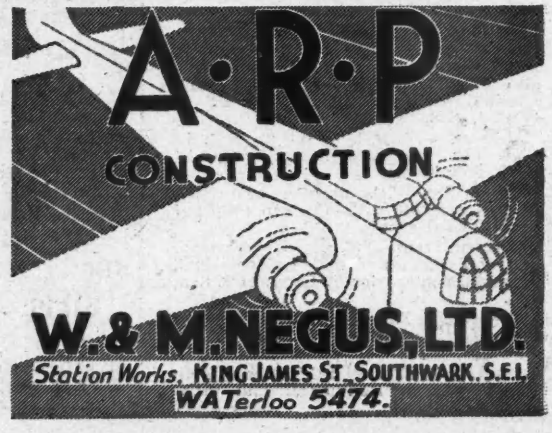
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